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STATE CREDIT AND BANKING

During the War and After

ROBERT BENSON

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State Credit and Banking
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The Author desires to record his indebtedness to Professor John A. Todd, to Mr. James H. Newcomb, and to other friends who supped together from time to time last winter and wrestled with credit problems, wherefore this Essay is inscribed to them.

CONTENTS.

- I. THE BEST POSSIBLE BANKING SYSTEM.
- II. STATE CREDIT AND THE ENGLISH BANKING SYSTEM.
 - a. The Position After The War.
 - b. Proposed Central Institution to provide means for after-war development, by enabling holders of Government Securities to borrow thereon.
 - c. Five Possible Criticisms.
- III. FINANCIAL BANKING.
- IV. GERMAN BANKING.
 - a. The Reichsbank.
 - b. The Darlehenskassen
 - c. The German Joint Stock Banks.
 - d. The German Stock Exchanges.
 - e. Contrast between German and British practice.
- V. THE EXPERIENCE OF AMERICA.
 - a. Reconstruction After The Civil War Of 1861–65.
 - b. The Federal Reserve Banking System Of 1913.
- VI. THE EXPERIENCE OF FRANCE.
- VII. CONCLUSION.
- VIII. APPENDICES.
 - a. Letter from Sir ROBERT PEEL to the Governor of the Bank, and Extracts from Sir ROBERT PEEL's speech, 6th May, 1844.
 - b. Professor GIDE on the tendency of money to cease to be a measure of value and become a unit of account.
 - c. Gold production, consumption, stocks, etc., by JOSEPH KITCHIN.
 - d. Note on the old remedy for panics in America, viz.:—Clearing House Loan Certificates, now superseded by the Federal Reserve Banking system.
 - e. Bank of France, variations in Rates of Discount and Interest, 1867–1875, and Rates of Interest on French Government Treasury Bills, 1870–1875.
 - f. Diagram of the Variations in the French Exchange, 1871–1873.
 - g. Gold Prices and Banking Statistics, 1895–1917, by Professor JOHN A. TODD.
 - h. Diagram A of Gold Prices and Banking Statistics, 1895–1917, Actual Figures.
 - i. Diagram B of Gold Prices and Banking Statistics, 1895–1917 Percentages on 1900.
 - j. Diagram C of Gold Prices and Banking Statistics, 1910–1917 Percentages on 1900.

I. THE BEST POSSIBLE BANKING SYSTEM.

A French political economist, Professor HENRI HAUSER, who has written the best book on German peaceful penetration,* remarks that "Germany's finances, which antiquated and complacent tradition told us were fragile, have answered the great test as well as, and perhaps at first better than, those of old States accustomed to the manipulation of gold: it required an unforeseen prolongation of the war to shatter them." Thus he raises the question whether Great Britain has already got the best possible banking system under the Act of 1844, or whether there is anything to be learnt from later systems in which the State co-operates, and which are more elastic than any system can be which depends in emergencies upon the command of gold.

Is it true, as alleged, that the German and American systems are capable of giving longer credit than the British system, and thus can advance safely on financial assets which can be sold only spasmodically, or over long periods, and therefore are unsuitable collateral for London banks? Financial, as distinguished from commercial, assets now form much the larger proportion of banking assets taken as a whole.† Has London been outstripped by other banking centres in dealing with financial assets by means of long loans? Secoundly, is "money" in Lombard Street more capricious, more variable as to rate of interest, more liable to be called suddenly, and therefore more dangerous to borrowers than money in some other centres?

No servile copy of German or American banking is desirable for the British Empire. Whatever there may be to learn, nothing should be adopted that cannot marry into our system, developed as it is out of the Bank Charter Act, whereby Sir ROBERT PEEL settled for *internal* purposes, the value of our money of account, the pound sterling. "If (he said) you will adhere to the standard of value and will adopt such methods as shall ensure the uniform equivalency of bank notes to coin, you may safely, in my opinion, leave untouched other forms of paper credit and entrust the regulation and control of them to individual caution and discretion."‡

* "Germany's Commercial Grip On The World." Eveleigh Nash, 1917.

† The difference between commercial and financial assets from the banker's point of view consists in their respective liquidity. The phrase "self-liquidating paper" is applied in America to bills drawn against commercial assets, such as the necessities of civilized life, which are in process of being distributed and consumed daily. Thus wheat, fuel, cotton and raw materials generally, also partly finished goods, are commercial assets, self-liquidating within a calculable time, say 90 days, and suitable collateral for bills or advances by bankers out of their depositors' money. But the wheat-field, the mine, the plantation and the ranch, also railways, mills and plant generally, are forms of wealth that are unsuitable. So far, therefore, it seems that commercial banking is concerned with distribution and not with production. Bills and advances against land, or industrial plant, are not self-liquidating, for the collateral behind the bills is not necessarily in process of being distributed daily.

At this point financial banking comes in to solve the difficulty of distribution, and to mobilize locks-up. Land, railways, mills,—all sorts of productive and industrial plant together with the improvements they imperatively need year by year,—are financial assets which have got to be capitalized into securities, or titles to a share in those assets, according to the revenue they earn and can be made to earn; and thus time is needed to establish their saleable value. London bankers avoid financial assets which require "long money" as distinguished from short money, and rightly discriminate against "finance paper" and bills drawn against securities, bonds and shares, except such as are already sold or where a "market" already exists in them.

‡ Speech of 6th May, 1844. See page 48.

In other words, PEEL left untouched the *external* value of the pound and its relation to foreign currencies and credit instruments, saying, "there is a material distinction in my opinion between bank notes and other forms of paper credit, and the effect which they respectively produce upon the prices of commodities and the exchanges." He also left unsolved (in his own words) "the precise nature of deposits, and whether they constitute part of the currency of the country." Thus he left alone three problems—prices, exchanges, and deposits. In these three relationships PEEL's question, "What is a pound?" again demands an answer.

First as to prices. PEEL sought to fix the price of one commodity only, in one relation, and in one country, viz., the value of gold in relation to pounds sterling, in the form of bank notes, within Great Britain. He made a sovereign, or 2568 oz. of gold, equal to one pound, and our bank notes equivalent to coin; and he drew a distinction between the effect upon general prices produced by such notes and the effect produced by credit generally upon prices. Thus he avoided endorsing, if he did not directly traverse, the old theory of an exact relation between gold and prices. He did not commit himself to the theory that the key to the secret of the rise and fall of prices (and the road to fortune) lies in obeying an elementary law, viz., that an increase in the currency raises prices and a decrease lowers them. In fact PEEL's position is not inconsistent with that of JOHN STUART MILL, where he said—"The proposition which we have laid down respecting the dependence of general prices upon the quantity of money in circulation must be understood as applying only to a state of things in which money, *i.e.*, gold and silver, is the exclusive instrument of exchange, and actually passes from hand to hand at every purchase, credit in any of its shapes being unknown."† Both PEEL and MILL knew that the proposition in question was not a law but a hypothesis—a truth which is liable to be superseded by a higher truth, viz., that things are really exchanged for each other through pounds sterling, and thus are really the objects of demand and supply reciprocally to each other, and not to gold nor even to pounds.

Secondly, as to deposits. The genius of British banking proceeded further to emancipate itself by developing an elasticity of supply of pounds sterling in the form of Bankers' Loans, which create deposits upon which cheques are drawn and set off against each other in the Clearing House. Thus credit balances are transferred from one bank to another within Great Britain, and the responsibility for the expansion and contraction of pounds to meet the variable demands of trade rests upon individual Bankers who have it in their power to lend, or not to lend, and thus to control illegitimate or dangerous speculation. But in the last resort the elasticity of supply of pounds sterling under the Act of 1844 is at the mercy of an export of gold.

Thirdly, as to the foreign exchanges. After the development of deposits, *i.e.* Bankers' liabilities, as money, the invention of the cable came and through cable transfers and arbitrage,—a medium of exchange unknown to PEEL and MILL,—sterling prices began to vary from hour to hour in relation to prices in dollars, marks, francs, rupees, pesos, etc., etc. Thus

† Mill's *Principles of Pol. Economy*, Bk. III. Ch. 8. Section 4.

the real values of commodities in relation to each other, as distinguished from their values in terms of foreign currencies, began to re-adjust themselves with greater freedom and less and less restriction to gold. A Central Bank, a Clearing House, and the Cable together have tended to do away with metallic money and bring us back to barter in terms of pounds by cross-entries in books. Thus the latest result of economic evolution materially modifies the old theory of money and prices, and affirms the primitive method of barter, as the higher truth.[†] The values of exchangeable things in relation to each other have re-asserted themselves and become more effective than their relation to gold. The problem has changed round since 1844. What PEEL left untouched, viz. what he called "paper credit," has tended to replace his measure of value.

When the Gold Standard Defence Association was working under Mr. BERTRAM CURRIE in 1894-7, Lord FARRER raised PEEL's question, "What is a pound?" and more than one member of the Committee came to the conclusion that what we were really defending was the sterling standard as distinguished from the gold standard. Now, through the test of war, the question of the distinction has become acute; we want to know whether our standard consists in a relation to gold, or in a relation between all commodities, gold included; whether its virtue is its rigidity, or its elasticity,—its restriction to gold or its emancipation. When in 1844 PEEL said—"If you will adhere to the standard of value . . ."—he no doubt meant gold; but was the standard in fact a gold standard or a sterling standard? By making bank notes equivalent to bullion certificates PEEL cured the depreciation and discredit of our circulation within Great Britain; but he did not thereby impose, or re-impose, a gold standard, and he left the world-wide circulation of pounds sterling to individual control through the rate of discount which, as long as it was low and steady, made the yoke of PEEL's standard easy and its burden light. Long before 1844, as I think, a credit standard, *i.e.* the sterling standard and freedom of prices, had tended to supersede a gold standard; and whether PEEL knew it or not, he left well alone. Masterly inactivity was well enough in his day: but inactivity is never masterly unless combined with initiative. All is change. In the end it is not well, unless changing conditions are met with foresight and action. The prestige of gold consists not in being the standard, but in being the best possible reserve for a Central Bank,—the most saleable thing in the world wherewith to settle international balances of account. For internal purposes its importance has steadily diminished.

Tested by the necessity of making payments for war imports, the external value of PEEL's pound ceased to be controllable by a rate of discount. The experiment of a 6% rate was made, but the weapon of raising the rate broke in the hands of the Governor of the Bank of England. It was one of the tragic moments of history, as at the crisis of the great battle of 1,000 A.D. recounted in the Saga of Olaf Tryggvesson, the bow of the King's archer, Einar Tambarskelver, broke; and to the King's enquiry "What broke with such a noise?" Einar replied "Norway, O King, from thy hands." The 6% Bank rate may have retained in, and attracted to, the London money market, American (including German American) balances

[†]See Prof. Gide, on the tendency of money to cease to be a measure of value and become a unit of account, page 49

amounting together to £50,000,000, or more, but a portion of these sterling remittances was covered simultaneously by purchases of dollar exchange for future delivery, and a proportion of the remainder was called on the day when the Governors of the Federal Reserve Banks warned their member banks against British Treasury Bills on the ground that they were not "self-liquidating paper" but floating debt that had got to be paid by renewals.* At that date American short money proved to be "bad money" to borrow, and what we got of it for 60 or 90 days was negligible compared with the price paid by the nation, in 6% Exchequer Bonds, in the depreciation of the 4½% Loan, in the rise in the cost of production (so far as it was due to dearer and more capricious money), in the damage to our credit abroad, and in the shock to confidence at home.

Moreover, the attempt to control purchasing power, by borrowing bankers' balances and restricting currency and credit, failed to control prices; the value of goods and services rose all the same. Why? Because purchasing power does not reside in money only. When a man buys goods he sells money, and when he sells goods he buys money. Purchasing power and paying power reside in both goods and money, *i.e.* in all forms of wealth that are saleable, or can be made exchangeable by credit, or barter. The result of the 6 per cent. Bank rate together with the attempt to control purchasing power was to penalise all borrowers, especially the Government as the biggest borrower.

Theory repeats itself. "From the time of the resumption of cash payments by the Act of 1819 (as MILL says) and especially since the commercial crisis of 1825, the favourite explanation of the rise or fall of prices has been the currency: and like most popular theories the doctrine has been applied with little regard for making it correct." If ARTHUR HUGH CLOUGH had been satirizing economists instead of hypocrites, he might still have written in irony "No graven images shall be Worshipped except the currency." Similarly in 1914-16 an erroneous hypothesis led some people to believe that by cornering money they could work a machine to keep down prices.

Great individualist as PEEL was, he would probably have been compelled as a Statesman to face the new problem and reinforce his basis of credit for the pound, *i.e.* gold with the credit of the State. To-day what he left untouched presses for solution. How can the emergency arrangements of 1914, which permit the banks to take out currency in case of need up to 20 per cent. of their assets, be regularised and our liabilities in gold be made good? We have got outstanding, and the total is still increasing, £265,000,000 of Treasury Notes and £55,000,000 Bank of England Notes, together £320,000,000 options of gold, besides foreign balances of £150,000,000, or whatever sum they may amount to at the end of the war. We have always been the biggest option dealers—the biggest sellers of "futures"—in the world. When the Bank of England buys gold, or anything else, it pays in pounds,—options, or "futures" of gold—rights to gold if and when required. When the other banks make loans, which create corresponding deposits, they create more pounds, *i.e.* more options of gold which the Bank of England may have to make good. Fortunately the internal demand for a gold currency has almost vanished with our habituation to paper, and the only options which the Treasury and the Bank may be forced to meet in gold are those of foreign Noteholders, and

* *Versuram solvēs. In eodem luto hysitas.* If you pay by renewals you stick in the same mud.

foreign depositors. Moreover the solvency of the Treasury and the Bank does not really depend on gold but upon the production of the Empire; and the production of the Empire depends upon the supply of capital and credit—"long" money and "short" money—under the best possible banking system. The stock of gold in the British Empire is estimated at £220,000,000 to which may be added our annual production; but it has not yet been concentrated in a Central Bank as a reserve against the sum total of the bank notes and the deposits of the Empire.

The alternatives are—

(1) To stand still, with gold alone as the basis of credit, on PEEL's assumption, true in his day, that a currency working as if it were composed exclusively of metal will suffice, and that a sovereign and the pound sterling are one and the same.

(2) The nationalization, or socialization, of banking, an experiment which may easily become a political issue,—an experiment that financial history in the United States from 1861 to 1913 (not to mention South and Central American Republics) warns us against, and which has been abandoned in the U.S. Federal Reserve Bank Act.

(3) The co-operation of the State along with PEEL's individualistic system, at which, in our experimental way, we have already arrived under emergency legislation.

Sir EDWARD HOLDEN has said—"The time has now come to repeal the Act of 1844." I would rather put it that the time has now come to acknowledge that PEEL's gold basis must be permanently fortified with State credit. Sir EDWARD criticised the Bank of England's division into two parts—the Issue Department and the Banking Department; and taking the Bank's statement before and after the crisis of 1914, he re-constructed them to "show that if the Bank had been working on the same principle as other (National) Banks of Issue, there would have been little ground for anxiety." At any rate amalgamation of the two departments, with one balance sheet instead of two, is calculated to make more intelligible what the Economist calls "the weekly cryptogram" and perhaps to make clearer the real strength of the Bank.

Nevertheless, two departments, as I think, or rather two institutions—two Central Institutions—are still needed, namely, the Bank of England, as the Bank of the British Empire, to regulate the Exchanges and the international value of pounds sterling, and another Central Institution to do for the market in Government securities what the Bank of England does for the Bill Market, *i.e.*, to make our premier security liquid and available as collateral for reconstruction finance, and a larger potentiality of credit for productive purposes.

I venture to think the State should come in to guarantee in case of need, in the manner hereafter suggested, the *liquidity* of loans made by such a Central Institution on Government securities, and in consideration of its guarantee should participate in the profits as in the case of the Reichsbank, and as the American Government does in the case of the Federal Reserve Bank. The business of deciding whom to lend to, for what object, for how long, and at what rate, is an art needing trained judgment such as cannot be got under a bureaucracy or from Government Departments.

The first step towards two Institutions has already been taken in the separation of the rate of interest allowed on foreign money in London from the rate of interest allowed on home money. The point is to avoid penalising British trade and British production by the high rate needed to keep foreign money here. A 10% Bank rate no longer brings gold from the moon.

The following chapter is an attempt to carry a step further the co-operation of State Credit without sacrificing the individualism of British Banking. It summarises the functions and working of a Central Institution to provide the means for after-war developments by enabling holders of Government Securities to borrow thereon.

To some, such a proposal may seem revolutionary, but in fact it is more open to the criticism that it does not go far enough; at least it does not go so far as the German or American banking systems; in both of which bills or "self-liquidating" paper form part of the basis upon which legal tender Notes are issuable. For, while it broadens the basis of credit, it limits it to gold plus Government Securities. It is an attempt to formulate a practicable course under existing conditions. It does not attempt to create a potential supply of pounds sterling comparable to the supply of American dollars or German marks, but it preserves the convertibility of our currency under 4 & 5 Geo. V. Ch. 14, and it does not shirk our existing liabilities to pay gold on outstanding options.

The idea that we pay in gold is deeply rooted in the public mind. It is somehow connected with the idea of national honesty as well as national solvency, and talk of the suspension of the Bank Act scares people as if it were repudiation as well as bankruptcy. But Americans and Canadians who are habituated to paper know that payments are really made in goods and services, while Continental critics regard our claim to pay in gold as a mark of British hypocrisy. The experience of the war may enlighten the public and enable them to realise that the Bank Act is practically suspended already; that the gold standard did not cease to exist when, or because, currency notes were substituted for gold in circulation, but that it really began to yield to the sterling standard when credit was invented and gold ceased to pass from hand to hand at every transaction. The public may come to understand that, in spite of our exportable gold currency, British banking adapted itself to conditions so that what was formerly treated as the measure of value gradually became no more than one among various *media* of Exchange, and that this was an international evolution. They may then go on to see that the excellence of PEEL's standard coupled with our cheque system really rested on elasticity rather than on restriction to gold; and that restriction to gold was its weakness and a relic of barter. Once again we are up against a condition and not a theory. Perhaps public opinion may now be willing to acquiesce in the broadening of the basis of credit with the assistance of the State.

What then is our standard? It is, I submit, the pound sterling. But what is a pound? Is it abstract or concrete? Vegetable or mineral? Paper or metal? Some say it is one, and some the other, when in truth it is neither, or rather it is both, i.e. it is a relation between gold and all exchangeable things. It is a relation which, as a banking system becomes more perfect, tends to merge into a free relation of all exchangeable things, gold included, to each other. The standard is the residual product of those relations. One might say that its stability is conditioned by instability; and that its honour, rooted in dishonour, stands. "*La monnaie à l'état le plus parfait est de papier*" i.e. Treasury Notes, under safeguards such as we have got already.

II. STATE CREDIT AND THE ENGLISH BANKING SYSTEM.

(a) THE POSITION AFTER THE WAR.

Our greatest needs will be :—

- (1) Raw materials, *e.g.* Cotton, Wool, Rubber, Iron Ores, etc.
These can be got by—
- (2) Development of the Empire, *e.g.* by Railways, Irrigation Works, etc.
- (3) Re-establishment of industries on peace footing.
This will necessitate—
- (4) Renewals, and arrears of repairs, *e.g.* Shipping, Railway Rolling Stock, etc.
- (5) Development and extension of new industries, *e.g.* :—
 - (a) Key industries, and industries captured from Germany.
 - (b) Industries which throw open new sources of wealth, or more economical methods of exploiting those which we already possess. Electric power schemes, as proposed by the Coal Conservation Sub-Committee, whereby £100,000,000 per annum may be saved : Plant for producing fixed nitrogen from the air to treble the production of land : Plant for commercial alcohol, or for dealing with non-ferrous metals, or for peat briquettes (with its by-products, ammonia and dyes) by the wet carbonising process, or for other scientific speculations in the best sense of the word, etc., etc.

In the aggregate all these mean an enormous demand for capital and credit, both "long" money and "short" money.

Government borrowings will not stop with the war. Government guarantees and subsidies for commercial and financial objects may be required to an extent hitherto unknown in peace time. The United States during their first 4½ years of reconstruction, April, 1865 to 30th June, 1869, raised by taxation and spent \$1,908,567,000 whereas their expenditure for administration was estimated at only \$425,000,000, or \$100,000,000 a year. DAVID A. WELLS in his Official Report calculates the money cost of the Civil War to the U.S. Government from 1861 down to 30th June, 1869 at \$4,171,914,498, whereas the debt borrowed for war purposes and not repaid out of current revenue 1861 to 1865 (the years of the war) was only \$2,412,547,000. In addition, there were pensions, State, County and City debts, and other remoter damage.

Since the outbreak of war there has been an immense creation of credit represented by the various War Loans ; money, not at the moment required for industry and trade, has found temporary employment in War Loans. But with the re-establishment of peace the position will be reversed ; money at present invested in War Loans will be required for industry and trade. Unless measures are taken to make Government Securities easily saleable, they will begin to fall ; holders, including banks, will find themselves loaded with depreciating Securities, and while this condition lasts, the capital represented by Government Securities will be, temporarily at any rate, as good as lost.

When a Government issues paper money beyond the demand for it, the paper money depreciates. In this war, the Government has really paid in War Loans for the goods and services it requires. War Loans are the paper money that the Government has issued. If means are not provided to utilise and liquefy the capital locked up in War Loans, when the war is over War Loans will be the paper money that will depreciate.

How is this position to be met ?

(b) PROPOSED CENTRAL INSTITUTION TO PROVIDE MEANS FOR AFTER-WAR DEVELOPMENT BY ENABLING HOLDERS OF GOVERNMENT SECURITIES TO BORROW THEREON.

(a) Capital, say,—£100,000,000, of which 5% to be called up leaving the balance as a reserve liability.

(b) The Capital to be held by the Clearing Banks in proportion to their deposits, or as may be agreed.

(c) The object is to be ready always to advance money on British Government Securities.

(d) Borrowers should maintain a margin of (say) 10%; whether this margin should consist of British Government Securities only, or include other good Securities, such as Colonials, is open to discussion.

(e) The effect of the working of the Institution would be that it would become indebted to the Clearing Banks for the amount of their advances.

(f) The State would guarantee the banks' advances in consideration of a share in the profits, and any bank must have the right in case of emergency to demand currency from the State up to the amount of its advance to the Institution.

(g) The advantage to the banks would be that not only would they be amply secured against loss, but as their advances to the Central Institution would be liquid, their proportion of liquid assets to deposit liabilities would be increased.

(h) The rate of interest charged by the banks to the Institution should be lower than the rate charged by the Institution. The difference would be the profit of the Institution, divisible between the banks and the State.

To show the effect of the working of the Central Institution, suppose that the banks' position were as follows:—

Deposits £2,000,000,000.	Reserves (till money) say ... £100,000,000	
	Balances with Bank of England 300,000,000	_____ £400,000,000*
	Loans, Investments, etc.	1,600,000,000
£2,000,000,000		£2,000,000,000

* or 20% quick assets against deposit liabilities.

Suppose the advances of the Institution to customers amounted to £1,000,000,000; the banks' deposits and loans might rise by £1,000,000,000 each. But as the loans would represent advances by the banks to the Institution guaranteed by the State in case of emergency, they would be liquid. The balance sheet of the banks would therefore be—

Deposits £3,000,000,000.	Reserves (till money) say ... £100,000,000	
	Balances with Bank of England 300,000,000	_____ £1,400,000,000†
	Advances to Central Institution 1,000,000,000	1,600,000,000
£3,000,000,000		£3,000,000,000

† or 46% quick assets against deposit liabilities.

Possibly the banks might require to increase their till-money up to the pre-existing proportion, or 5% of their deposits; but, as they would cease to receive interest on the amount taken out in currency, there would be a safeguard against their taking out more currency than

was actually required to maintain their till-money. Such currency would not be in circulation, and in the above balance sheet would increase the till-money by £50,000,000, and decrease the amount of advances to the Central Institution by a like amount.

As to the profit divisible between the State and the Banks, if the Institution charged for its advances $\frac{1}{2}\%$ above the rate it paid to the Banks, the gross profit on advances amounting to (say) £1,000,000,000 would be £5,000,000 per annum, and the Banks would receive their proportion of this profit as Shareholders of the Institution.

The position of the Banks would be very much stronger in emergencies in so far as they would be entitled to demand currency for the balance of their advances to the Institution. As to what constitutes an emergency, a practical solution would be to allow the Banks to take out such currency as would be required to make up their cash reserves to the normal percentage of their deposits. But a much more stringent definition, which would limit the right to draw currency notes to times of financial crisis, might be more desirable.

It must be a paramount object to conserve the value of the pound sterling. Thus the question of the Bank Charter Act comes in, and its suitability to the conditions of to-day when we must be prepared to regulate our finance as if Great Britain was a debtor country, and not a creditor as it was in Sir ROBERT PEEL's time. I do not say that we shall be, but some of our loans to Allies may prove irrecoverable (or temporarily so) and make us in effect a debtor country for the time being, because we shall owe more to America, Holland, Scandinavia, Spain, and Switzerland than our Allies will effectively owe to us.

The first great critic of the Bank Charter Act was Sir ROBERT PEEL himself, in his letter from Windsor Castle dated 4th June, 1844. (See page 48). He admitted the contention of the Governor of the Bank and of Mr. BOSANQUET and others that his Act was liable to be too rigid, as in fact it proved to be in 1847, when he himself sanctioned its suspension. He preferred to err on the side of over-rigidity, saying that he expected men able to deal with emergencies to arise, along with the emergencies of the future. He was right, for in 1857 and 1866, when solvent debtors were on the brink of ruin because they could not get money even at 10 per cent., men arose again to demand suspension; again in 1890 and 1907 we had to fall back on the support of the Bank of France; and yet again in 1914 on the outbreak of war men arose to devise Currency Notes, for we had not got them ready printed as the Germans had. Later on men were found to deal with the emergency of the American Exchange and finally, in accord with our Allies, the United States, to hold it steady. Since Sir ROBERT's day the cable has been invented and prices have become international. We are now in the position of having had to entrust the regulation and control of prices and the exchanges, not as Sir ROBERT PEEL said "to individual caution and discretion," but to the State, to manage from day to day until our position as a creditor country is beyond a doubt.

Clearing Banks' deposits have increased from £1,033,000,000 on 31st December, 1913, to £1,703,000,000 on 31st December, 1917, and may amount to over £2,000,000,000 by the end of the war. There may be no difficulty about meeting the demand on the part of the Bill Market, nor yet for short loans on quick-turnover collateral;—except in so far as they may mean withdrawals of gold. The difficulty is more likely to arise over the demand for

longer loans which are the subject of financial, as distinguished from commercial, banking, and which are not suitable employment for deposits. The public has plenty of assets to meet the demands of reconstruction, but they are largely locked up as fixed capital, or in War Loans. Hence the need of a sort of pawnshop for Government securities (*a*) to liquefy War Loans, (*b*) to assist banks to unload their investments in War Loans, (*c*) to create a broad and free market and maintain the credit of our premier security.

If people find they can't sell, they all want to sell. But if they can sell, or borrow freely, many of them won't want to sell; every fall in price then tends to bring in fresh buyers, and to establish a market before confidence is impaired.

(c) POSSIBLE OBJECTIONS TO THE PROPOSED INSTITUTION.

Five main criticisms of the scheme may be anticipated:—

1. Will it cause further rise of prices, i.e. "Inflation"?
2. Will it stand the strain of a foreign drain upon our gold reserves?
3. Would it in effect mean abandoning our free market for gold?
4. Is it required? May we not find ourselves with too much money after the war instead of too little?
5. Would it contribute to speculation, honeycombed credit, and panic?

I take these criticisms in order—

1. THE FEAR OF INFLATION.

(a) The word inflation is not strictly applicable to a note which is convertible into gold. The present Treasury notes issued under the law 4 and 5 Geo. V. Ch. 14. are specifically declared to be convertible, though in fact at present the owner could hardly exercise his right to demand gold owing to the special war emergency regulations under the Defence of the Realm Act.

(b) There would be no actual increase of Currency in circulation unless there was a crisis and a run on the Banks, in which case it is required temporarily and would do no harm.

(c) The rise of prices during the war is supposed by many to be due to the Currency Notes. On this point I submit statistics and diagrams prepared by Prof. JOHN A. TODD, of University College, Nottingham, author of "The Mechanism of Exchange."* It will be observed that the rise of prices correlates closely with the expansion of deposits. I will not attempt to estimate how much of this expansion is effect, and how much is cause of rise of prices;—how much is inevitable and how much might have been avoided. The best measure of inflation is probably the increase of the Banks' Investments in Treasury Bills, War Loans, etc., including Ways and Means advances. One object of the proposed Central Institution is to assist in unloading any excessive holdings of the Banks. A true market will carry a lot of Stock, as it once did of Consols.†

* Humphrey Milford, Oxford University Press, 1917.

† What is a market? A market should be broad and free, though it may have to be supported to begin with. One swallow does not make a summer, and one, two or three transactions do not make a market. A true market postulates several hundred transactions daily, so that a *real risk* is always forthcoming for every buyer and every seller. Such markets are rare, especially on the Stock Exchange. Financial assets require nursing,—often for a long time. After being capitalized into bonds and shares a market has to be created for them, for which purpose easy money, surely obtainable, is all important. But not every day, nor every year, does an investment demand come for them.

The history of how a broad and free market once upon a time existed in Consols and how it gradually became restricted till it fizzled out—a national misfortune—would be a chapter by itself. The history of the market for pounds sterling—the largest market of the world—and how it came to be restricted, remains to be written after the war.

(d) If inflation exists at present it will be followed by deflation after the war, which has its own peculiar difficulties and dangers. To the Banks in particular it means an increase in the proportion of their invested assets to their quick liabilities, unless they can unload those investments, or borrow on them in case of need. To producers and distributors falling prices mean re-adjustment of everybody's share in the price of the product, and unless costs can be re-adjusted *pari passu*, lock-outs and strikes follow, and loss.* Any power of graduating the inevitable fall of prices which will come as peace production overtakes war consumption, is to the good. Good banking largely consists in keeping things moving on, so as to avoid congested spots and sudden breaks. Incidentally a banker has to teach some customers to sell and repent. Many of our after-war difficulties can be solved only in the course of experiment.

2. THE PROTECTION OF THE GOLD RESERVE.

(a) The respective gold holdings of our neutral creditors, Spain, Holland, Scandinavia, and Switzerland in their State Banks have increased from £51,100,000 in December, 1913, to £190,800,000 in June, 1918, while the gold reserves of the American Federal Reserve Banks have increased from £46,500,000 in December, 1914 to £380,000,000 on 31st May, 1918, without counting gold in the United States Treasury and in circulation. Suppose our floating debts at call or short notice were to amount to £250,000,000 at the end of the war, will the money be wanted on the nail in gold, or will it, or a proportion of it, be kept in London, or invested in this country till it can be taken out in goods? Probably the latter, if our neutral creditors see that we have faced the situation, and that, if they want gold, they can have it. The war has proved the futility of trying to meet adverse balance of trade by gold: no belligerent except perhaps America will have enough of it to pay in gold, and some creditors will not want more gold. In short, is any drain of gold probable except perhaps to America; and America's interest will be to carry her debtors till she can be paid in goods and services and not to upset their finance. A good banker does not begin collecting debts by forcing customers to liquidate. As to Germany, she is most unlikely to be able to command gold; she is more likely to have to part with it in order to get raw materials.

(b) A table of gold production compiled by Mr. JOSEPH KITCHIN, is subjoined showing the world's production for the last eight years, the absorption by India and Egypt, and the industrial consumption which, when deducted, gives the annual amount available as money.† The aggregate stock of gold money has increased in seven years from £1,461,000,000 to £1,876,000,000; in the three years 1915-17 the increase was from 1,660 to 1,876 millions, an average increase of 70 millions per annum; and the aggregate stock of gold money per head of population from 209d. to 253d.: notwithstanding the fact that the world's gold production in 1917 was only £89,400,000 against £96,800,000 in 1915, and that of the British Empire £56,000,000 against £60,000,000, or 63 per cent. of the world production.

* A table is submitted of the inflation and deflation in paper dollars after the American Civil War, from an index number starting at 100 in 1860, rising to 216·8 by the end of the war in 1865 and declining to 100 by 1879; also of the inflation and deflation in terms of gold, rising from 100 in 1861 to 203 in 1864 and declining to 100 by 1879. See page 35.

† See pages 50 and 51.

(c) The trouble in pre-war crises was that the fear of a foreign drain caused a rise of the internal bank rate, restriction of credit, increased need of currency and gold for internal purposes, liquidation, and finally crisis. If the internal rate of interest can be permanently divorced from the external rate, the situation will be materially altered.

(d) During reconstruction we shall have to manage our Exchanges from day to day as cleverly as France did. See diagram in appendix and table of purchases of exchange (p. 39).

3. OUR FREE GOLD MARKET.

(a) I do not think there can be any free market for gold for some time after the war. Government control can only be gradually relaxed over exports and imports, issues of capital, foreign exchanges and gold movements. Possibly gold will move about from centre to centre much less than heretofore, especially within the Empire, and the Anglo-Saxon world.

(b) Is it possible to have a British Empire controlled rate of exchange? Such a step would be a development of the functions of the Bank of England; viz.: (1) To keep the accounts of all banks in the Empire; (2) to make cable-transfers at par between its central office and branch offices or agencies in every large city of the Empire; (3) to control the export of gold, of which it should be the sole custodian and reserve-holder against the Legal-tenders of the Dominions as well as against our Treasury Notes. Centralization of Empire banking would contribute both to the financial and political unity of the Empire, and also prepare the way for easier conditions in the money-market upon which to fund the Empire's war debt at a lower rate.* Further it would be a natural preliminary to an arrangement with America. If America were to join in pooling stocks and production of gold in order to stabilise the dollar to the pound and avoid shipping gold to and fro, it would, I believe, remove an obstacle to the development of trade between the two branches of the Anglo-Saxon race as well as be an automatic penalty on outsiders, and so provide an additional "sanction" for the Peace of the World,—a contribution, along with a surcharge on certain necessities of German industrial life, towards an indemnity payable by Germany. There is a precedent already. Under President CLEVELAND's administration in 1894, the monthly coinage of \$4,000,000 of silver forced into circulation and coinciding with an excess of Treasury expenditures over receipts (amounting for the fiscal year ending June 30th, 1894 to \$69,800,000) caused a drain of gold and hoarding in fear of an impending suspension of gold payments; in this emergency the late J. PIERPONT MORGAN combined exchange bankers in New York and London to hold steady the relation of the dollar to the pound sterling just above the gold exporting point until President CLEVELAND was ready to meet the situation. For the interval the value of the dollar rested on the gold in the Bank of England. *Per contra* might not the value of the pound in emergencies rest on gold in the Federal Bank of America?

(c) Shall we ever return to a gold currency? I doubt whether we shall be able to afford it for some time to come, and whenever we can afford it the utility of gold will be greater in the Bank of England in connection with Exchanges, or for window-dressing purposes in connection with Currency Notes, than in our pockets. By the time we can afford it, the public may have concluded that a sterling standard is best, combined with a paper currency, i.e., Currency Notes, convertible, to prevent any possibility of over-issue, as they now are nominally under 4 and 5 Geo. V. Ch. 14.

* This whole subject has been treated by Mr. J. F. Darling on the basis of "A State Bank for the Empire."

4. WILL THERE BE TOO MUCH MONEY OR TOO LITTLE AFTER THE WAR?

Is a new Central Institution required? Considering that there are already £320,000,000 legal tender Notes outstanding, and that deposits may easily amount to £2,000,000,000 by the end of the war, it may be argued that there will be too much money about instead of too little.

The argument is fallacious. One cause of the expansion of Bank deposits is the increased investment by the Banks in Treasury Bills, Exchequer Bonds, War Bonds, etc. including "Ways and Means advances." When the Government begins to repay Treasury Bills, etc., raising the money either by taxation or by issue of War Loans placed with investors, deposits will automatically contract as the Government repays the investments held by the Banks. Another cause of expansion of Deposits is the rise in prices of commodities, which necessitated larger advances to finance trade. When prices of commodities begin to fall deposits will also begin to contract. Lastly, in the happy event of there being too much money about, people would not have to go to the proposed Central Institution. It would be a safeguard in reserve. Credit is not created unless it is required; it is not a supply forced into circulation. There is no equation between the potential supply of credit and the actual demand.

When the six great New York Trust Companies entered the Federal Reserve Banking system last year, Governor STRONG stated in a circular dated 15th October, that their membership would enable the Federal Reserve Bank of New York to increase its loans and deposits by \$1,100,000,000; and further that, should it do so, the lending capacity of the member banks in the District of New York would be expanded in case of need by no less a sum than \$8,000,000,000. The British banking system has no such potential supply of credit; on the contrary we are in sight of contraction of deposits as and when commodities fall to normal prices. By that time every manufacturer and merchant who carries his stock by means of bills or loans from his bankers may have to borrow only half as much as he is borrowing to-day and bills and cheques may be drawn for only half the war-time figures. In so far as expansion of loans and deposits has been an *effect* of rise of prices, so fall of prices will automatically be followed by contraction of loans and deposits.

The increase in Banks' investments from £223,000,000 on 31st December, 1913 to £529,000,000 on 31st December, 1917, or from 20·2 to 28·5 of their deposits, is no true correlation of factors which rise and fall together.* As deposits run down, the proportion of investments will bulk larger and impair liquidity; Banks will want to unload at the same time as others whose money is temporarily invested in Government securities, and if nothing is done to prevent it there will be a collapse, for the price of Government stock depends upon the market and whether money is surely obtainable to carry it for a probable profit until it can be distributed.

5. THE RISK OF PANIC.

What does Inflation really mean? It means the creation, and forcing into circulation, of more "Money" than is needed simply as a medium of exchange. Inflation of currency is not so difficult to guard against as inflation of credit.

* See statistics in Appendix. Excluding the Bank of England, the investments of the other banks have risen from £191,000,000 to £463,000,000.

War inflation arose with the enormous increase of deposits, which are "Money," against production of munitions, etc., *i.e.*, against perishable goods which disappeared, leaving the money in circulation.

If credit, as created by a Central Institution, is used only for the production of real goods and the performance of real services, *i.e.*, to support genuine productive enterprises, not speculations, there will be no inflation.

As to the risk of speculation getting beyond control and creating fuel for panic, that is always with us, and the remedy is largely a question of good banking. I am afraid that man will never be quite master of his own credit machine; but, however this may be, there will have to be more control over Stock Exchange quotations and issues henceforward, also over the direction of investment and customers' operations. More care will have to be taken to see that the working man and the little public generally do not lose their savings in the wrong sort of speculations.

We have got to mend our haphazard ways and control the activities of the Company promoter, whose object is to trade in watered stocks, unenforceable securities, gambles in mining or other counters. Employment and production are the first conditions of national solvency. There is something to be learnt from the German policy of conserving national savings for productive purposes through the great banks, each with its group of smaller banks and their respective customers. A subsequent chapter deals with this aspect of German organization—the Reichsbank, the Darlehenskassen, the Joint Stock Banks, and the Stock Exchanges.

When we look ahead and realize the amount of "long" money needed for production, it is difficult to be patient with those who argue that the value of the pound sterling can be safely left to rest where PEEL left it, namely, on our ability to command and manipulate gold. To argue thus, and insist that bankers' credit shall not henceforward be strengthened in emergencies by State credit is tantamount to saying that we shall not get all the money needed for reconstruction and the solvency of the State. It is tantamount to saying that we must yield to the dollar the place of honour held by the pound sterling, and even to the mark whenever the Germans may succeed in rehabilitating it.

III. FINANCIAL BANKING.

The main problem of modern banking is the financing of incorporated industry. Financial banking has been developing faster than Commercial banking.

Before 1844 international operations were almost confined to merchandise and specie. Merchandise, gold, and silver made up the imports and exports, balances being settled in those metals; and the export and import of capital were in their infancy. Up to that date statistics of exports and imports based on customs returns fairly disclose the annual indebtedness of one country to another; but shortly before 1844 a new article of export made its appearance,—an article which has now taken precedence of all others and falsifies the statistics of merchandise,—viz. securities, or what the French call *titres*—paper titles to “Capital” or property of all sorts. The capitalization of advances into the saleable form of Bonds and Stocks has now become a fine art, and there is all the difference in the world between the making of good securities and the making of bad ones. Both are mobilisable by credit; they constitute the field of financial banking which is a science as well as an art, its function and its self-interest being to discriminate against the bad and carry the good securities until they can be distributed.

The invention of the cable doubled and trebled the business of financial banking, while it destroyed the old business of the British Merchant; it became necessary for him to control his merchandise from its production to its consumption, or to specialise, or else to become a Merchant in Securities, in order to live.

Professor ANDERSON of Harvard University in his book “The value of money,” 1917, ch. xxiv., pp. 498-512 gives a table showing for three or four decades preceding 1909 the development of Bank Loans on Stock Exchange Collateral, as distinguished from “self-liquidating” or commercial paper. He gives a comparison of National Bank Loans in New York.

1886 to 1904 as follows:—

	Loans on Commercial paper.	Advances on Securities.
1886	\$146,000,000.	\$107,000,000.
1904	268,000,000.	538,000,000.

Again, in Europe, the following classification is given of the discounts of the great European Banks in francs; together with the Note circulation, which expanded by 70 per cent., while financial banking expanded by 500 per cent., and commercial banking by about 50 per cent.

	Commercial Loans.	Advances on Securities.	Note Circulation.
1875	Fr. 4,127,000,000.	Fr. 828,000,000.	Fr. 9,699,000,000.
1903	6,147,000,000.	4,129,000,000.	16,539,000,000.

Later statistics lead to the conclusion that the maximum of the World’s Commercial assets for bank advances may possibly be 24 % of the total. A second line of enquiry leads to the conclusion that they amount to 13½ %; and yet another suggests that they are

only $11\frac{1}{2}$ % at most. While these figures may be correct for the world at large, it does not follow that they correctly represent the position of London banks, which discriminate against financial paper and specialize in banking in its most liquid form.

Our Bankers' advances, whether in the form of Loans or Discounts, are mainly on commercial collateral, or if on financial, are so guaranteed and margined as to be liquid. But if Professor ANDERSON's analysis is anywhere near correct, it shows that our supply of Bank Credit, being based on deposit liabilities, is specially suited to deal with only $11\frac{1}{2}$ to 24 % of the total field for advances; and it explains why other and more elastic banking systems, which do not borrow so much "short," are capable of lending longer.

War came and at once enlarged the field of financial banking. It became the duty of the financial banker to stop the gap between imports and exports with Securities,—to postpone the settlement of debts for imported munitions, etc., by creating and exporting Securities acceptable to the creditor.

Reconstruction will make new demands upon financial banking. The British Empire has got to be made to produce its maximum, for increased production is a condition of solvency. Take the case of cotton, which, after it has been planted, picked and baled, becomes an article of daily consumption, that spinners can buy from hand to mouth,—suitable collateral for loans of depositors' money. But the World's supply of cotton has decreased as the result of the war and it must be replenished. Its development could well employ £10,000,000 a year for 10 years, to be spent on irrigation works, railways, and machinery. This is also true of high-grade iron ore *e.g.* from Brazil or Spitzbergen, needed to mix with our own. The plant which forms the greater part of the total cost of getting more cotton and more iron ore to market will, it is to be hoped, be furnished by British industry, but it will constitute fixed assets—temporary locks-up which are unsuitable collateral for Bankers' deposit liabilities. More railways in India and Africa are another pressing source of demand for "long" money; and not only new railways and enterprises of all sorts, but older undertakings too if they are to continue to be productive, and respond to the public demand for continually increasing facilities.

Most of such undertakings have got to borrow annually, for extensions, or modern plant, or new inventions in order to meet competitive conditions, larger sums than they earn year by year. To stand still is to go back. Concrete instances are innumerable. Even the L. & N. W. Railway used to borrow, and had to borrow, half the amount it was distributing semi-annually in dividends; and other British railways had to borrow much more. In Canada the Canadian Pacific Railway used to have to borrow six times the sum it paid in dividends. The same is true of the group of foreign railways owned in Great Britain which borrow much more money annually than they remit. In America the late JAMES J. HILL calculated that railways require annually £200,000,000 for "construction," or what we call "capital" purposes. Another striking illustration in the field of public utilities is the telephone business of the United States whose financial history for 17 years is summarized in a recent report which is an economic document. It shows £15,800,000, put aside out of revenue to reserve before paying dividends, but during the same period it was

necessary to find £158,000,000 for imperative capital expenditures to meet the expansion of its business and fulfil its functions in the public service. For last year (1917) it had to borrow three times as much as it distributed in dividend (8 per cent.) upon its £80,000,000 capital stock and these borrowings had to be met out of sales of securities. Its finance has been marked by foresight and avoidance of floating debt; otherwise, in 1907 under the rigid American banking system now superseded, its dividends would have had to be passed, the development of its public service suspended, and its credit ruined, with the result of loss and general depreciation in the market for investments. Among British industries, Electric Power Supply has offered a difficult problem to bankers for many years. More power is constantly demanded by the public for productive purposes, and more machinery, mains, and generating stations have to be laid down and paid for every year. No demand is more legitimate. But, lest the producer should make too much money out of the consumer in London, the State reserves an option of purchase, now vested in the London County Council, on the basis of a break-up valuation of the Companies' plant in 1931, and no man can say how that valuation will work out. With such an uncertainty ahead the Companies cannot create a security that is certain to be repaid in 1931. The legislature made it impossible for them to comply with the first rule of finance, viz. when you have to make a security, make a good one and not an illusory one—one that will be a source of lasting credit and not of far-spreading discredit. A gamble in Premium Bonds, is less incalculable than a gamble upon the valuation of power plant in 1931. Public policy kept the London Power Companies poor and checked their development in order to have the option of buying them up cheap, and thus instead of first-class up to date plants freely supplied with the latest turbines, dynamos, and mains, the Authority is liable to find an antiquated plant to buy up in 1931. Bankers are necessarily shy of lending, even at high rates, to any Company whose cash account betrays how difficult it will be to capitalise advances into a form in which they can be liquified and distributed.

In Great Britain we have not yet attempted to meet the demand for longer credit,—longer loans against financial collateral, as the Germans did. We called it 'adventurous banking.' But the Germans went on, mobilizing a small and safe proportion of fixed assets by means of their central institution and an endless chain, and after constantly raising its efficiency by Bank Amalgamations, they are now raising it again by increase of Bank capital. Nor have we yet inaugurated a financial institution as the Americans have just done with capital and borrowing power of £700,000,000, in addition to the Federal Reserve Banking system, to finance the imperative capital expenditures of incorporated industry. The demand for longer money for reconstruction is almost upon us, demanding from British banking an elasticity, i.e. expansion of loaning capacity and note-issuing power in case of need, comparable to that described by Mr. BENJAMIN STRONG, the Governor of the Federal Reserve Bank in New York and already quoted. (Page 17).

Bank amalgamations are steps towards the ideal foreshadowed by economists of one bank for everybody, one bank in which all customers' receipts and expenses would be settled in account in pounds sterling as a nominal unit of value which does not necessarily correspond to any coin.* The Reichsbank's *giroverkehr* and free exchange for the German Empire, together with the German-Austro-Hungarian-Swiss postal cheque are also steps in the evolution—steps which deserve our consideration.

* See Note. page 49.

A main motive for bank amalgamation in Great Britain is frankly stated to be a union of banks which are complementary to each other. When a bank makes a loan, its liability is discharged through the Clearing House by a cheque on the Bank of England, and the loan becomes a deposit, or deposits, elsewhere. Thus its loss of reserve is liable to be another bank's gain. But amalgamation increases the chance of a bank's loan returning overnight as a deposit with itself—a cross-entry instead of a loss of reserve. In that case what does a bank part with? Nothing. Public interest and self-interest both dictate such amalgamation. Time and friction are saved, and the efficiency of the bank is raised to a higher power, subject always to periodical publication of Accounts, Reserves, and Capital,—outward and visible signs of an inward and trustworthy state,—to command the confidence of depositors. Deposit liabilities do not necessarily need large capital; but liabilities for acceptances, or advances against financial collateral, raise a different question which the present suggestion of another central institution is designed to meet.

Big business must have big banks. Neither the private financier, nor the small bank, nor the public which comes in only spasmodically through the Stock Exchange, can take care of the finance of incorporated industry and the imperative requirements year by year of the open capital account.

Thus, concentrated resources and more and more powerful banks are a necessity. True, the power to do right implies the power to do wrong, and no one is infallible, not even the youngest. But British bank managers have been conspicuous in the past for respecting the confidence and the secrets of their customers, and taking care of them at rates of interest not higher, as a rule, than one per cent. above the Bank of England rate, subject always to the maintenance of their own liquidity against deposit liabilities on demand, and to the limitation inherent in our system as contrasted with the French, German, and American systems, *i.e.*, the "manipulation of gold."

To substitute control by a Government department, or bureaucracy, for the individualism and freedom of the British money market, would be a fatal step. Its organization and ability to appraise personal credit and trustworthiness are assets not to be impaired. The history of American banking for 50 years is an object lesson to us, and a warning against any such experiment. To-day, war experience in America and the discount upon U.S. Government Loans is bringing much discussion as to whether the potential supply of credit in dollars is adequate; it is not improbable that amendments may be introduced to make the Federal Reserve Banking system even more "flexible" than it is already.

There is a popular theory that as war is dissipating the nation's capital, or accumulated savings, therefore after the war capital must be scarce and money, or credit defined as the right to use another man's capital, must be stringent.

This theory rests on the hypothesis that for every pound annually invested, a pound must be annually saved; it is supported by statistics to show that the nation's investment fund normally amounts, or amounted before the war, to about £400,000,000 per annum, half of which was applied in capital expenditures at home, and the other half placed abroad. The hypothesis is fallacious in so far as it assumes that the sum available is limited to current savings. The

truth is that for every pound invested a pound must be saved somewhere and some time: in the past, the present, or the future. It is a problem, not of capital but of credit, whose function, as wielded by good bankers, is to mobilise past, present, and future savings for approved purposes.

Another theory is that gold is the sole basis of credit and therefore, in view of the present demand for gold and its decreasing production, money, or at any rate pounds sterling as being rights to gold if and when required, will be scarcer and dearer than ever when reconstruction comes and the demand for pounds becomes acute. As was pointed out by a contributor to the June, 1917, number of the Journal of the Institute of Bankers, this is the old theory that paying power (or purchasing power) resides only in money. "It is one degree broader than the theory that only legal tender is *liberatoire*, whereas the truth is that anything will pay debts provided it is exchangeable. Paying power does not really reside in money, but in the man behind the money, and the exchangeable things in his possession or in prospect of production. These, if he be trustworthy, entitle him to bank credit."

"It is true that in the course of the war the view has been expressed that a bank has to get money and not to lend it, in other words, to restrict credit instead of creating it. The country has paid, by a rising rate of interest, for this narrow view of the function of a central bank. Under a modern banking system any solvent borrower for productive or national purposes who can tender good collateral is entitled to get credit, and the credit he gets is based on his product which, or in case of need his collateral, comes in to discharge his debt. To assert that purchasing power resides in "money" only, and to say that it is limited because "money" is limited, is an argument in a circle."

Our problem is not one of capital, or of gold, but of credit based on production and distribution of goods. Personal credit, granted and received, is the medium by means of which mobilizable goods and services are exchanged for each other. Credit, under a modern elastic banking system, is a mass of personal obligations, transferable, and varying in quality and maturity, which expand and contract as required for the exchange of goods and services for each other, in terms of money but without reference to the quantity of gold.

It would be a national disaster if theories of the limitation of the investment fund to annual savings, or of credit as based on gold alone, or of prices as being liable to become more inflated as a banking system becomes more elastic, were to cripple reconstruction. It is true that for a period of the war the policy prevailed of cornering purchasing power or restricting credit in the hope of controlling reciprocally the level of prices. But it failed and we are wiser now. Money is easier on Government collateral and first-class Bills. It remains to make it easier for reconstruction purposes, i.e. for producers throughout the Empire.

IV. GERMAN BANKING, ITS BASIS OF CREDIT AND THE ELASTICITY THEREOF.

(a) THE REICHSBANK.

The present German banking system dates from the foundation of the Imperial Bank of Germany,—the Reichsbank,—after the Franco-Prussian War of 1870-1. This Bank superseded the Clearing House which existed in Hamburg long before that date, and after absorbing the old Bank of Prussia in 1875, it opened for business on 1st January, 1876. It also superseded the agglomeration of Banks in the 26 States of the Empire, and gradually substituted a centralized and elastic credit system for no system at all.

Out of these components a system of exchange for the German Empire was developed whereby money can be remitted to any of the Reichsbank's 486 branches without charge to either sender or receiver, or loss in transmission.

The capital of the Bank was raised by the law of 7th June, 1899, from Mks. 120,000,000 to Mks. 180,000,000 as from 1st January, 1901.

The German Empire participates in the net profits of the Bank, but is not a shareholder, nor responsible for its liabilities. The shareholders are responsible, and they numbered (in 1913) 16,646 Germans and 2,153 Foreigners.

The Reichsbank enjoys the privilege of Note issues not limited to any fixed sum, but based as to 33½ per cent. on a cover of coin, including notes of the Imperial Treasury—*Reichskassenscheine*—issued against the gold *trésor de guerre* in the Juliusturm at Spandau. As to the remaining 66⅔ per cent. cover, it may consist of commercial and financial three-named (or in exceptional cases two-named) bills of exchange running not longer than three months.

In a speech delivered some years ago the Kaiser, defending himself against the charge that the gold received for the French indemnity was a war chest, said, "My gold at Spandau is no war chest; my war chest is the 14,000,000,000 marks of foreign investments held by my people."

For war purposes the Germans foresaw the necessity of more elasticity, and were ready with legislation. Accordingly on the outbreak of war, laws were passed authorising (1) Notes of the *Darlehenskassen*, or Loan Offices, (see below) to be included along with Notes of the *Reichskasse*, or Imperial Treasury, as part of the cover for Notes of the *Reichsbank*. (2) Treasury Bills of the Empire to be included as part cover for Notes along with Bills of Exchange, if maturing within 3 months. (3) The note circulation,—which had been tax-free up to 550,000,000 Mks. rising to 750,000,000 free at the end of each quarter, but which after that was subject to tax at the rate of 5 per cent. per annum *pro rata temporis*—was relieved of all taxation on the outbreak of war.

BALANCE SHEET OF THE REICHSBANK, 31st MAY, @ 20 Mks. per £.

	ASSETS.		LIABILITIES.	
	1918.	1917.	1918.	1917.
Gold	£117,283,700	£126,660,550	Share Capital ...	£9,000,000
Silver, Nickel and Copper Coin ...	6,021,650	1,695,900	Reserve Fund ...	4,741,000
Notes of the Reichskasse & Darlehenskassen ...	81,037,550	22,384,800	Notes of the Reichsbank in circulation	600,134,400
Other Bank Notes ...	96,100	110,550	Deposits ...	381,739,700
Bills receivable, Cheques & Treasury Bills ...	727,238,600	468,225,200	Other Liabilities ...	31,046,450
Loans against Securities	348,100	486,500		
Investments	5,045,700	5,594,850		
Other Assets	89,590,150	52,841,800		
	£1,026,661,550	£678,000,150		
				£1,026,661,550
				£678,000,150

Compared with last year, the demand for advances, or discounts of Treasury Bills, Trade Bills, and Cheques, shows an increase of £255,000,000 of which £155,000,000 figures in the increase of Deposits—transferable bank credit or “money” in the Lombard Street sense. The remaining £100,000,000 was found by an increase in the Note circulation which, including other demands for currency, now amounts to £600,134,400, an increase for the year of £186,000,000.

To maintain the $3\frac{3}{4}$ cover for the Notes, as required by law, in the shape of (1) Gold, (2) Silver and other Coin, and (3) Imperial Treasury Notes or Loan Offices Notes, the last named (viz. the Darlehenskassenscheine) have increased by over £58,000,000. Thus the cover for £600,134,400 Reichsbank Notes in circulation consists of—

Gold ... ...	... ...	... ...	£117,283,700
Silver and other Coin ...	... ...	... ...	6,021,651
Imperial Treasury Notes limited by law to 120,000,000 Marks against 100 per cent. of gold at Spandau, and Notes of the Loan Offices ...	... ...	81,037,550	
			£204,342,900

or about £4,300,000 over the legal cover, which has varied during the last four years as follows:—

31st May, 1915.	1916.	1917.	1918.
Per cent. of cover 54·09	45·30	36·40	34·05

The sum total of the Notes of the Loan Offices outstanding is now £444,810,000, of which £80,330,000 are in the Reichsbank amongst the cover for its Notes. What collateral these Notes of the Loan Offices are secured upon, and with what margin, it is impossible to say. So far as they are secured upon German War Loan there is a margin of

25 per cent.; or they may be secured upon a portion of Germany's foreign investments selected by expert bankers, or other saleable assets with a margin of 25 to 50 per cent. There is no telling what collateral good bankers may not turn up with from e.g. Turkish obligations now secured by oil wells between the Euxine and the Caspian, or American Bonds or Shares imprisoned by the blockade, or French or British paper—anything that will carry the right directly or indirectly to dollars, francs, or pounds.

The margin of gold and other cash cover, as above, for the Notes and Deposits of the Reichsbank, taken together, was as follows, for the last four years:—

31st May, 1915.	1916.	1917.	1918.
Per cent.	42·3	36·1	23·5
			20·9

It is better to recognise the strong points of the German Banking system than to condemn it complacently as if the only sound basis of credit were gold. Before the war gold was the most universally saleable thing in the world, and it still retains its prestige *pour régler les comptes internationaux* as the president of one of the Neutral State banks doubtfully said after he had amassed some £50,000,000 of it. But anything will pay debts provided it is saleable against legal tender of the Creditor nation, or drafts on London, Paris, or New York.

(b) THE GERMAN DARLEHENSKASSEN.

These Loan Offices were ready to act, upon the outbreak of war, just as the Reichsbank was ready with its One Mark Notes. They have small share capitals, probably all held by the banks, and they pay dividends.

It has been the fashion in some quarters to criticise them, as Pitt criticised French finance, and to assume that they are lending, and issuing Notes (Darlehenskassenscheine), on any mobilia—"pianos" or "chromos,"—or else on immobilia such as land and houses, as if the Germans had embarked on the path of French assignats. Mirabeau's first £16,000,000 (400,000,000 fcs.) of interest-bearing assignats were issued against Crown lands and Church property confiscated in 1789, and had their issue been limited to £48,000,000 (total issue for the year 1789, redeemable by 1795,) it is probable that they would have proved to be fully secured. But the French went on issuing till the amount reached £1,820,000,000, and, after being "scaled" more than once, those that still remained were redeemed at the rate of one fc. in metal for 70 fcs. in assignats.

German Loan Office Notes (it is believed) have not been issued against land but against saleable assets, valued by experts, with varying margin, especially to facilitate subscriptions to German War Loans, with 25 per cent. margin, as described in the *Cologne Gazette* of 2nd September, 1915. They formed part of the distributing machinery of the market for Government debt; and are analogous to American Clearing House Loan Certificates, (now superseded by the Federal Reserve Banking system) except that the latter were receivable only between banks in settlement of daily balances, and thus did not get into general circulation.*

As to the effect of the issue of £444,810,000 Notes of the Loan Offices on prices, and on the exchanges, German economic opinion has been divided upon the Quantity Theory of Money ever since HELFERICH questioned it in 1843.[†] In economic circles in Berlin 25 years ago SCHMOLLER, WAGNER, and OLDENBURG were understood to hold it, while MAX HIRSCH, the co-operator, disagreed with them. Whatever may have been the balance of economic opinion, the Germans permitted no Quantity Theorists to block the way of mobilising, internally, certain forms of capital wherewith to finance the war. They separated forthwith the *external* from the *internal* valuation of the Mark ; and left the former to depend upon the balance of Exports and Imports.[‡] Therefore they have been able to maintain Government credit internally ; and there has been no downgrade in the price of their 5 per cent. War Loans, the first of which was issued at 97½, the second at 98½, and the rest at 99 about which price they still stand.

The maintenance of the price of German War Loans around 99, and the regulation of a market in which every buyer, or seller, can find his *vis-a-vis*, is easier in Germany than in England. Jobbers do not exist in Berlin ; everything is concentrated in the hands of official brokers. Probably a syndicate of banks and institutions who can trust each other have pooled their holdings of War Loan so that no one of them can undersell the pool ; and thus, acting with the Reichsbank, they hold the price steady around the last issue price. In this manner they adjust supply to demand so that at any given time there are more buyers than sellers. It is an old rule to sell on a scale up, and buy on a scale down ; it is a rule habitually followed by those who have to issue and distribute loans, for a loan can hardly be distributed on dear money and a falling market. By this time it is probable that there are few congested blocks of German War Loan, and that it is widely distributed in the hands of the public, so as to make the whole nation interested in the solvency of the State. Nor, probably, is German ability to raise further War Loans approaching the end. The end is due to come some day, not from financial breakdown, but from inability to feed, clothe, and munition the army, and to feed and clothe the civilians ; such was the case with the Confederates in America in 1865, and they never fought better than in that year, when you could buy 100 of their paper dollars for one dollar gold.

[†] "Von den periodischen Schwankungen im Wert der Edeln Metalle von den Entdeckung Americas bis zum Jahren, 1830."—J. Helferich, 1843. Referred to by Lord FARRER, "What do we pay with ?; or Gold, Credit and Prices." Cassell & Co., 1889.

[‡] There has been a tendency in some quarters here to point at the external depreciation of the Mark as if it amounted to a breakdown in German finance, and insolvency ; whereas internal solvency is untouched and external solvency is a question of resumption of Exports. For the natural wealth of Germany in coal, iron, and potash, see articles by "Politicus" in the *Fortnightly Review* of June and July, 1918. In taking prices at the mine or pit's mouth, whereby he arrives at an aggregate figure of £237,000,000,000, "Politicus" omits to allow for time and cost of extraction. But the comparison with the undeveloped wealth of other nations should check hasty predictions of German insolvency.

The capitalization of potential wealth after the war will be the province of German banking ; whereas in England hitherto it has been the field of the promoter. Imagine the prospectus which that prince of promoters, the late ALBERT GRANT, alias Baron GOTTHEIMER, would have compiled and the moderate capitalization he would have put on Germany's assets in coal, iron, and potash compared with Politicus' valuation. The public would have followed the pied piper, and it would not have been a swindle like the Emma Mine. The value of the promoter's wares depends upon the management, and what an enterprise earns, and can be made to earn, net.

After the war, the question of capitalization, speedy re-organization, and recapitalization in order to restore the solvency of discredited undertakings, must be taken up afresh. The subject demands a chapter to itself.

These hypotheses are safer to work by, and bank upon, than the opposite hypotheses, e.g. that the German banks are loaded up with War Loan, or that the purchasing power of the public is approaching exhaustion, or that a currency depreciated externally spells ruin.

(c) GERMAN JOINT STOCK BANKS.

Some 3,000 to 4,000 banks still exist, but the bulk of the business is in the hands of the great Joint Stock Banks ; of these there were, on 1st January, 1913, nine in Berlin and ten in the rest of Germany, each of them with more than £2,500,000 (50,000,000 Mks.) capital paid up, viz.:—

PAID UP CAPITAL ON 1ST JANUARY, 1913, WITHOUT COUNTING RESERVES.

Deutsche Bank	£10,000,000	Allgemeine Deutsche Bk.	£5,500,000
Disconto Gesellschaft	10,000,000	Rheinische Cr. Bank	4,750,000
Dresdner Bank	10,000,000	Rheinisch Westfal Dis. G. ...	4,750,000
Handel und Industrie Bank	8,000,000	Barmer Bankverein	4,437,500
Schaffhausen'scher Bk. Verein ...	7,250,000	Bergisch Markische Bk.	4,000,000
Handels Gesellschaft	5,500,000	Essener Cr. Anstalt	3,600,000
National Bank	4,500,000	Mitteldeutsche Pr. Bk.	3,000,000
Commerz u Disconto	4,250,000	Norddeutsche Bk.	2,500,000
Mitteldeutsche Cr. Bk.	3,000,000	Pfälzische Bk.	2,500,000
		Schlesischer Bk. verein	2,500,000

Only a few millions of Capital are required for the Deposit business of these Banks, which they call their Pawnbroking Department, the remainder being available for commercial and financial banking.

Since January, 1913, they have increased their paid-up capitals ; that of the Deutsche having gone to £13,750,000, or including its reserve, £25,000,000 ; the Disconto to £15,500,000, or including reserve £22,900,000 ; the Dresdner to £13,000,000, or including reserve £17,000,000, and the Prussian State Bank (Seehandlung) from £5,000,000 to £8,000,000. Nor do these figures denote the limit of their strength for they act each as the head of a group of smaller banks, which in their turn have groups of customers and investors behind them. It is probably a mistake to think that their proportion of liquid assets has tended to decrease, as London critics have suggested. This may have been the case up to ten years ago, for the period when industrial concerns were developing and requiring big advances, and when the process of joint-stocking was in full swing. Such customers had then to be nursed with "long money," and the advances capitalised for issue in the form of bonds and shares to absorb German savings as and when available. During that period German banks put their own experts on Industrial Boards in order to see that no bad securities were created for customers to lose money in ; and their experts remained directors to ensure continued good management. Thus the banks usurped the position of the irresponsible promoter as he is known in this country on the one hand, and on the other of the guinea-pig director whose interest is limited to his qualification and his fees.

So successful was this process of joint-stocking that few instances can be found of the Germans having made, and issued, a bad security. German industries became so profitable and financially so strong that, instead of being in a position to impose directors on them, the banks began to seek for directorships in order to secure valuable accounts. At the same time they contributed to unify economic policy, co-ordinating production and distribution, and harmonising individualistic forces that made for discord, economic waste and money losing. Thus, while industrial promotions have diminished, the banks' liquid assets are stated to have continued to increase along with their deposits.

The main feature of the Reports of the German Joint Stock Banks for 1917, is an expansion of deposits and an increase in the ratio of liquid assets, viz., cash, money in the Reichsbank, short bills of exchange, and German Government Securities. These form the liquid assets of the first rank ; after them comes the second rank, comprising securities quoted on the Stock Exchange and advances to the Stock Exchange with collateral. Thus on 31st December, 1917, the Dresdner Bank had 59½ per cent. of its assets in the first class, and a total of 78 per cent. in the two classes, according to the balance sheet published in the *Frankfurter Zeitung*, 13th April, 1918.

(d) THE GERMAN STOCK EXCHANGES.

The German Bourses are under Government supervision. The President of the Stock Exchange Committee is a Government Commissioner, and prices are officially fixed by sworn brokers appointed by the Committee in accordance with demand and supply. If there are no transactions, then the latest transaction is quoted. If at a certain price there are still buyers about, the word "Geld" is added, i.e. "Bid"; if there are still sellers about the word "Brief" is added, i.e. "Asked."

No shares of smaller denomination than Mks. 1,000 (£50) fully-paid are allowed to be issued or quoted, except those of Insurance Companies, and continuations and contangoes are illegal ; the policy being to drive away gamblers to other Bourses and protect the German people's savings from Stock Exchange losses, conserving German capital for German industry.

This policy is doubled-edged. The speculative instinct in the best sense—the call to adventure—is invaluable to a nation, for in the world of affairs progress depends not on those who seek little certainties but on those who know how to take risks and be right upon the average. Prussian officialism tried to suppress a natural instinct ; but though you may try to pitch it out with a fork, it always recurs. Thus the more adventurous of Germans came to speculate in London and lost their money in gold mining and other shares along with the Briton. In future (as I think) we have got to see that the dice are not loaded against the speculator, and that in every security to which a quotation is granted he gets a fair run for his money.

In Germany, Bonds and Shares are not admitted to quotation solely upon their merits ; for though no bad issues are admitted considerations of general policy may lead to the exclusion of perfectly sound issues. For instance, the shares of the Chicago, Milwaukee and St. Paul Railway were refused admission to the Berlin Bourse on the ground that all investment money was then required for the expansion of German industrial undertakings. But it was

part of public policy to hold a proportion of the nation's capital in American or other foreign stocks and to-day Germany still has foreign investments left, to be sold after the war, or pledged, pending resumption of exports.

(e) CONTRAST BETWEEN BRITISH AND GERMAN PRACTICE.

The list of Berlin official quotations comprises comparatively few non-dividend paying Stocks, and suggests that opportunities for the public to lose money are greater in London than in Germany. Had British policy been to conserve the savings of the public, more money would now be forthcoming for War Loans and for reconstruction after the war. The money of the Post Office Savings Bank depositor in excess of £200 was compulsorily invested in Consols and when they fell steadily from, say, 100 to 75, he thought he had been "done." Depositors had few alternatives beside Building Societies or Slave Clubs, out of which their savings were not always forthcoming, or Penny Banks which were ruined by the fall in Trustee Stocks, or, as a last resort, putting a bit on a football match or a good horse where, perhaps, they got a fair run for their money. Up to now the working man has been almost guaranteed a loss on all the investments, Government Stock included, that were open to him.

Nor does the little public that invests on the Stock Exchange do much better. The function of the London Stock Exchange, in the words of a well known broker, is that of "accoucheur." Some control over inflated capitalizations, issues, and quotations, is needed in the sole interest of the investor. Many brokers of the highest standing, who take a longer view of prices than from fortnight to fortnight, lay themselves out to keep up with the varying relation of earning power to capitalization, and the imperative annual demand of progressive concerns for money which, if not provided, means stopping dividends and perhaps also default. Possibly banks too may see their way, for the protection of their customers, to form in their own offices investment departments, staffed like some of the Trust Companies, with men who are dictionaries of securities. So important is it to conserve the nation's savings year by year that a little more of the principle of *uberrima fides* should be required of vendors and promoters who are now sheltered by *caveat emptor*.

The difficulty of the public in England is to analyse a prospectus;—to find out the circumstances and the basis, legal and financial, upon which investments are launched, and to keep up with their changing conditions. In Germany there used to be numbers of small "Bankers" whose chief business was to look after the investments of their customers. Many of these have been taken over, and their businesses carried on in the old offices, as agencies of the large banks. The consequence is that when a private individual has money idle, he asks his bank to find him investments, and as a rule the customer is well served. Thus the banks acquired an enormous placing power, and on the rare occasions when they made a mistake, they stood ready to buy back any of their issues sooner than let their clientele into a loss and forfeit its confidence.

A German bank clerk has to have a certain standard of education, as if he had matriculated at a University, which in fact most of them have done. As a rule he has to start as an apprentice and work three years for nothing, going through every department in

the bank. The standard of clerical education has a lot to do with German success in advising upon investments. A highly educated man is let off with one year's service in the army instead of three. A large percentage of the younger bank clerks use their leisure hours in listening to lectures; thus most of them have a knowledge of economics as well as of two or three foreign languages.

The experience of the British and Scottish Investment Trust Companies, whose aggregate capital amounts to about £100,000,000 belonging to thousands of small shareholders, has been that it was not only more profitable from the point of view of interest, but also safer from the point of view of capital to put their money abroad rather than at home. At any rate those Companies which invested largely in the United States have done best. The experience of one of them which had about half its money there and the rest distributed over the world is as follows:—

	REALIZED PROFITS.	REALIZED LOSSES.
Home ...	...	£67,600
Continental ...	...	57,632
Colonial ...	...	103,823
United States...	£234,739	
River Plate ...	18,678	
Various Localities ...	33,990	
	<u>£287,407</u>	<u>£229,055</u>

	PERCENTAGE OF INVESTMENT IN DIFFERENT LOCALITIES.	
Home ...	1891	1901
Continental ...	7.92	10.00
Colonial ...	4.51	5.48
United States...	19.20	10.81
River Plate ...	47.25	47.88
Other Localities ...	14.15	12.65
	<u>6.97</u>	<u>13.18</u>
	<u>100.00</u>	<u>100.00</u>
Number of different investments ...	177	217
		301

Experience in other quarters is needed before generalizing from these figures as to economic and political conditions for investment in Great Britain and the Colonies compared with conditions in the New World. Everybody's capital is now more or less locked up in Government Securities and everybody's object—certainly that of Trust Companies—is to employ it for reconstruction within the Empire instead of deranging the Exchanges by exporting capital again to the United States or South America. The Empire is still in its infancy. As soon as borrowing time is over and paying time has come, a condition of the solvency of the State and the Dominions under the burden of their aggregate debts will be the development of the incomparable estates of the Empire and of the productive power of Great Britain.

The reconstruction period of America after the Civil War, 1861-5, is an example of honourable and successful payment of public debt and restoration of credit; it is also proof that Conscription of Capital is wholly unnecessary. What America did, Great Britain and the Empire can do, provided we have the best possible banking system. The two following chapters summarize the financial experience of America and France after their respective wars.

V. THE EXPERIENCE OF AMERICA.

(a) RECONSTRUCTION AFTER THE CIVIL WAR 1861-1865.

Though history never repeats itself it may be useful to attempt a summary of how America paid her debts after the Civil War, solving problems similar to those which confront us and emerging triumphantly after 14 years of vicissitudes.

When LEE and the remnant of his army laid down their arms at Appomattox Court House on 9th April, 1865, the Confederates, in Mr. ROOSEVELT's phrase, were "beaten to a frazzle." They gave up all material, their plantations were destitute, labour disorganised, railways a "streak of rust," paper money and public credit at zero, and except that there were no manifestations of triumph on the part of the victors and the lot of the vanquished was made as easy as possible by the general amnesty proclaimed on 29th May, the Southern States had about reached the condition contemplated by the German *Kriegsbrauch*, or code of war, which seeks to destroy not only the men and fortresses of an enemy but also his "entire intellectual and material resources."

In these circumstances stagnation reigned in the South for years; purchasing power and general solvency were slow to arise, and prosperity hardly began to return in that section of the country till 1879.

In the Northern States, on the other hand, the Federal Government succeeded, within 18 months, in distributing 1,500,000 soldiers into civilian employment and thereupon Americans started borrowing, wherever they could, to develop their incomparable estate. In that process, to gridiron the prairie with railroads was a condition precedent to getting settlers out upon the land. They recklessly sold 7 per cent., 8 per cent. and even 10 per cent. 1st Mortgage Bonds of railways under construction at big discounts, and also exported cotton, oil, food-products, etc., but imported, (as our Colonies used to do for development purposes,) more than they exported, viz. for the 6 years 1868/1873 £100,000,000 imports, upon the average per annum, against £79,000,000 exports.* But Bonds carry interest, and America was liable besides for freight, insurance, and travellers credits, so that the annual foreign balance against her by 1873 amounted to at least £35,000,000 per annum without counting floating debts carried in the form of 60 days sterling exchange, against all sorts of collateral which had to be slaughtered to pay liabilities when bills could not be renewed.

*Foreign trade for years ending 30th June.

	Imports.	Exports.
1868 ...	£71,500,000	£56,400,000.
1869 ...	83,500,000	57,200,000.
1870 ...	87,200,000	78,500,000.
1871 ...	104,600,000	88,600,000.
1872 ...	125,300,000	88,800,000.
1873 ...	128,400,000	104,500,000.
	<hr/> £600,500,000	<hr/> £474,000,000

All this time, like our own Dominions and Colonies, she was laying the foundation of future wealth, to which the unearned increment of her estate was to contribute, along with the annual difference between production and consumption. Millions of acres of land that was not worth 10 cents an acre were on the way to become worth \$100 or more; coal and other mineral lands were to become worth thousands and thousands of dollars per acre; diversified industries were developing and being transplanted from New England, New York, Pennsylvania, and Ohio to Western cities as they sprang up, and town-lots became worth \$1,000 or more per front foot.

In October, 1873, America was pulled up short by the panic which began in May in Vienna and spread to Leipzig, Frankfort, Hamburg, and Berlin. Had she possessed a better banking system she would have been spared a great set-back and much distress. The attitude of Democracy to money, which HOSEA BIGLOW gibeted out of the mouth of the popular candidate on the hustings—

“ My love for North and South is equal ;
But I'll just tell you straight and frank,
No matter what may be the sequel,
Yes, Sir ! I am—agin a bank ! ”

protracted a system of currency and banking without a central institution. Under this system, rigid and decentralized, every bank tended to look after itself instead of its customers, and to run upon its neighbours in order to increase its own reserves whenever confidence was shaken. Money in crop seasons used to run up regularly in New York to 6 per cent. and a commission besides per diem, and in Western cities to $2\frac{1}{2}$ per cent. per month; a panic was always on people's minds, and whenever it came, money disappeared and the public was reduced to a condition of barter.

While the Government was trying every sort of experiment in the way of control of banks and varieties of currency, the banks themselves invented a remedy for panics, viz. Clearing House Loan Certificates, the particulars of which are worth recording in the progress of individualistic efforts towards an elastic banking system.* For forty-eight years after the war democracy never let go its suspicion of the “ Money Power ” and paid the price of general liquidation and unemployment after the panics of 1873 and 1893 and lesser liquidation after 1884 and 1907.

In 1873 Western banks, which were advancing on food-products or other assets that pass daily into consumption, came off better than Eastern banks which were advancing on financial or Stock Exchange collateral. Railway securities have always figured largely in New York panics and after 1873 the majority of railways went into bankruptcy. No railroad ever earned even working expenses from the day it opened for traffic, and if within two years it showed in its accounts net earnings equal to interest on cost, it was doing exceptionally well. But such net revenue was never cash; the demand of the open capital account for betterments and extensions to accommodate a growing business was insatiable, and a fruitful source of wreckage. Indeed professional wreckers, as some men were called, had nothing to do but to do nothing;

* Note, page 52.

the imperative demand for money soon led to floating debt, next to Receiverships, finally to Reorganization. Canada, in the next decade, was confronted with the same problem of financial banking in the case of the Canadian Pacific Railway and avoided breakdown only by continuous Government support. This railway was chartered in 1881 and opened for traffic in 1887 ; its far sighted Directors provided Dividends out of Government subsidies for 10 years, 1883-1893, on \$65,000,000 Stock (equal to over 6 per cent. on the issue price) and thus prevented disasters, such as overwhelmed and retarded America, until its territory was occupied by settlers and traffic had grown to an amount which visibly insured solvency.

America's productive activities after the war, based as they were on debts piling up, were complicated in other directions besides that of railways. In agriculture, the "breaking" of tens of thousands of acres of virgin prairie synchronised with the appearance of new wheat supplies from Russia and South America ; and the consequence was a catastrophic fall of wheat prices. As to industry, the demand for iron was unprecedented and there appeared to be no end to manufacturing profits. Bankers generally failed to realise how dangerously high prices of all commodities were ; besides, they were working under a banking system whose only elasticity in emergencies was Clearing House Loan Certificates, a form of Bankers' Currency for use among themselves within the Clearing House and based upon any good assets belonging to banks, or their customers, at a low valuation and with 20 per cent. margin. After the panic America had to reverse the position of her foreign trade, as Australia had to do after 1893 and as Canada has actually done in the course of this war, and to export more than she imported as a condition of becoming a solvent nation. The figures are worth quoting for the years ending 30th June :—

1873	Excess of imports of merchandise	£24,000,000
1874	... Exports	£3,770,000
1875	Excess of imports of merchandise	3,900,000
1876	" exports "	15,900,000
1877	" " " "	30,200,000
1878	" " " "	51,560,000
1879	" " " "	52,900,000

Thus did America economise. Paying time had come and she became thrifty ; she "wore her old shoes" for five years and did what we have now got to do. She was also helped by immigrants from every European country as follows :—

1867	...	298,967	1872	...	404,806	1877	...	141,857
1868	...	282,189	1873	...	459,803	1878	...	138,469
1869	...	352,768	1874	...	313,339	1879	...	177,826
1870	...	387,203	1875	...	227,498			
1871	...	321,350	1876	...	169,986			

The falling off in immigration after 1873 was part of the penalty paid by democracy for the preceding feverish development culminating in panic, liquidation, and unemployment, and a situation which a rigid banking system was incompetent to deal with.

The finance for the whole period from the beginning of the civil war up to the triumphant conclusion of the reconstruction period in 1879 is summed up in the following table :—

RISE AND FALL OF PRICES IN PAPER DOLLARS (OR "INFLATION" AND "DEFLATION") DURING THE CIVIL WAR IN AMERICA, AND AFTERWARDS, UNTIL "RESUMPTION" ON A GOLD BASIS, ON JANUARY 1, 1879.

Year.	VOLUME OF CURRENCY.		PRICES. Index No.	TRANSACTIONS OF NEW YORK CLEARING HOUSE.		VALUE OF U.S. CURRENCY PER \$100 GOLD.
	Amount.	Per Cent.		Amount.	Per Cent.	
1860	\$ 435,407,252	100·0	100·0	\$ 7,231,143,057	100·0	\$ —
1861	448,405,767	102·0	100·6	5,915,742,758	81·8	—
1862	334,697,744	76·8	117·8	6,971,443,591	95·0	113·3
1863	595,394,038	136·7	148·6	14,867,597,849	205·6	145·2
1864	669,641,478	153·7	190·5	24,097,196,656	333·2	203·3
1865	714,702,995	164·1	216·8	26,032,384,342	360·0	157·3
1866	673,488,244	154·6	191·0	28,717,146,914	397·1	140·9
1867	661,992,069	152·0	172·2	28,675,159,472	396·5	138·2
1868	680,103,661	156·1	160·5	28,484,288,637	393·9	139·7
1869	664,452,891	152·6	153·5	37,407,028,987	517·3	133·0
1870	675,212,794	155·0	142·3	27,804,539,406	384·5	114·9
1871	715,889,005	164·4	136·0	29,300,986,682	405·2	111·7
1872	738,309,549	169·5	138·8	33,844,369,568	468·0	112·4
1873	751,881,809	172·6	137·5	35,461,052,826	490·3	113·8
1874	776,083,031	178·3	133·0	22,855,927,636	316·0	111·2
1875	754,101,947	173·1	127·6	25,061,237,902	346·5	115·1
1876	727,609,388	167·1	118·2	21,597,274,247	298·6	111·5
1877	722,314,883	165·8	110·9	23,289,243,701	322·0	104·7
1878	729,133,634	167·4	101·3	22,508,438,442	311·2	101·4
1879	818,631,793	188·0	96·6	25,178,770,691	348·1	—

It will be observed that America began reconstruction on the theory of cancelling her redundant currency, viz. from \$714,702,995 at the close of the war in 1865 to \$661,992,069 in 1867, but stopped then through fear lest "contraction" should cause a corresponding fall of prices. Probably she need not have been alarmed. At any rate after the panic of 1873, when the immediate future of all business was loss, bankruptcy was rife, and transactions shrinking by 30 per cent. or more, the redundant currency settled in the banks in the form of excessive and un lendable reserves over and above the 25 per cent. of deposits which, under the old rigid system, the banks in New York, Chicago, and St. Louis were compelled to keep in legal tender. "To this day, as Professor DEWEY says, there is uncertainty and division of opinion as to what were the real forces that accomplished resumption in 1879 and the means by which it was afterwards maintained." This much is certain that after 1873 "Commerce came to the rescue of finance." Production and thrift did the rest. The fall in prices following the depression of 1873 and the increasing demand of Europe for America's cotton and food stuffs established conditions favourable for importation and retention of gold, and the value of the dollar in relation to gold steadily improved. By January 1, 1879,

the \$624,627,909 "Greenbacks" and National Bank Notes then in circulation (along with \$117,452,130 gold coin and certificates, and \$6,204,081 silver dollars besides subsidiary coin) ceased to be redundant and a loan was placed, partly in Europe, for \$250,000,000 of 4½ per cent. U.S. Government bonds which produced more gold than was necessary to make dollars, like pounds, rights to gold if and when required. As a matter of fact the gold was not required and our own Treasury Notes may prove to be equally harmless, if the issues contract as they have expanded, automatically.

The corner stone, or the foundation, of the value of dollars in relation to pounds sterling, and *vice versa* did not really rest on Gold, but on exports visible and invisible. Gold for internal circulation is a costly luxury but is indispensable for external solvency in the last resort and in the meantime for window dressing to maintain confidence. A nation that puts out liabilities in terms of gold,—options on gold in the form of (1) Currency Notes, (2) Deposits (which are liable to be swollen by discount of foreign finance bills) and (3) export of capital (which though it may end in establishing the position of a creditor nation may tend in the meantime to a drain of gold) must possess a commensurate stock of gold in its State or Central Bank. The Germans were far-sighted enough to accumulate gold long before the war partly through direct relations with Transvaal firms or their consignees, but chiefly through purchase in the open market wherever they could get it cheapest, so that, besides some £60,000,000 visible in the Reichsbank, they had a circulation of gold larger probably than that of England in proportion as their cheque system was less developed.

(b) THE FEDERAL RESERVE BANKING SYSTEM OF 1913.

To return to America, it was a piece of good fortune both for herself and the Allies that 77 years after 1836 when the Bank of the United States was killed by political influence under President JACKSON, President WILSON arose to surmount democratic prejudice "agin a bank" and established what is to-day the most powerful centralised system in the World. It has superseded the combination of banks in emergencies through the Clearing House and substituted a potential supply of credit and currency in case of need far in excess of any demand in sight at present. As the Canadian Banking system has never yet found its elasticity of supply of credit to solvent and trustworthy debtors unequal to the demand, so it is probable that the powers and resources of the American system will avail to deal with all emergencies as they arise, subject always to good management. While legislative provisions cannot eliminate all mistakes of management the principle of the act is a combination of Government and Banking influence in selecting the managers. Purely banking operations are handled by twelve Boards of Directors for each of the twelve "regional" Reserve Banks of whom the majority are chosen by bankers. General supervision, and for some purposes control, is vested in the Central Federal Reserve Board appointed by the President with the advice and control of the Senate.

American tradition and sentiment favor paper money for legal tender. Thus under the Act, as passed in 1913, Notes were not issuable directly against gold, but against commercial paper rediscounted at the 12 regional Banks. When soon after the outbreak of war gold gravitated from London to New York the far sighted governors of the Bank invented a

roundabout, much criticized, process whereby to acquire the incoming gold as a reserve at the centre. They were pulled up by the fact that no provision of clerk power existed to handle worn out Notes as they came back from circulation, nor to pay for the cost of printing new ones. This and other initial difficulties have been surmounted by continual amendments. Section 16 of the Act now permits Bank Notes to be issued against "notes, drafts, bills of exchange, or acceptances . . . or gold or gold certificates" the last five words having been added among the amendments of 21st June, 1917. The system, as established, was essentially for commercial banking and the prejudice against re-discount of financial, as distinguished from commercial, paper continues, but has been relaxed in favour of paper with U.S. Government loans as collateral, against which the Federal Reserve Banks advance to their member banks so as to enable them to advance to customers, for periods of 90 days, and renewable at rates of interest varying with the market.*

The quantity of Federal Reserve Bank Notes which may be issued is wholly within the control of the Central Board; but the initiative in taking out circulation rests entirely with the Directors of the Reserve Banks. Federal Reserve Notes are obligations of the United States, receivable for taxes, customs, and public dues, and redeemable in gold. A cover in gold of 40 per cent. must be maintained against the Notes; and a cover of 35 per cent. in gold or legal tenders is required against the deposits. As to the member banks, the 7,500 National Banks became members forthwith in 1914 and their example has since been followed by State Banks and Trust Companies. There are three classes of member-banks, (1) "Central reserve city banks," (2) "Reserve city banks," (3) "Country banks." On 21st June, 1917, by amendment to section 19 of the Act, the member-banks were relieved of the liability to carry any part of their cash reserves, except till money, in their own vaults and were obligated to keep the following reduced reserves as net balances on deposit with the 12 central banks in their respective districts, or with the Federal Reserve agent or in the U.S. Treasury:—

First class, 13 per cent. of "Demand" deposits and 3 per cent. of "Time" deposits.

Second class, 10 per cent. " " " " 3 per cent. " " "

Third class, 7 per cent. " " " " 3 per cent. " " "

Time deposits are defined as deposits for 30 days or longer.

* NOTE. The Federal Reserve Bank of New York announced by circular dated 13th October, 1917, as follows:—"Loans can be made directly to member banks by the Federal Reserve Bank for periods not exceeding fifteen days, with Liberty Bonds as collateral, for which the rate is three per cent. There is nothing in the law to prevent a member bank from paying the loan as it matures and making a new loan for a smaller or larger amount for further periods of fifteen days, providing circumstances at the time the notes mature require it. This method may be helpful in enabling a member bank to carry temporarily bonds for large subscriptions where the subscribers do not wish to pay immediately."

Custodians of a bank who wish to subscribe to bonds and pay for them on the instalment plan, i.e. thirty, sixty or ninety days, may give their notes covering the instalment payments to their bank.

If the bank is a member of the Federal Reserve system, it may endorse and re-discount the paper with the Federal Reserve Bank, provided it has a maturity of not more than ninety days, with Liberty Bonds as collateral; the present re-discount rate being $3\frac{1}{4}$ per cent. Arrangements for reasonable extensions might, of course, be made between the banks and their customers, but the notes should be drawn for not exceeding ninety days in each instance."

Rates of interest are now (July, 1918) higher, viz. 5 per cent. between banks, and proportionately more to customers for 90 day periods, because the opportunities to use money are very inviting. Most lines of business are showing large profits and there is great temptation to extend operations. If the money market were not under semi-control, rates would be higher still, i.e. if such a demand existed in normal times for purely commercial purposes rates would be over 6 per cent. Thus it is no longer profitable to carry Government Securities on borrowed money, unless by special arrangement. The tax-free "Liberty Loan" of the United States, issued at par, is quoted 99 $\frac{1}{2}$ but the 4 $\frac{1}{2}$ per cent., taxable, loan is quoted about 98 or 4 per cent. below the issue price. Thus the Americans are up against the two factors, viz. Income Tax and dear, if not capricious, money, which have affected British Government credit.

The combination of State support and supervision along with freedom to bankers to lend or not to lend,—selecting whom to lend to, for what object, upon what collateral, for how long and at what rate,—is carried further, in that the old banks,—National, State, and Trust Companies,—are the sole stockholders of the 12 Federal Reserve Banks in their respective districts. They are entitled to six per cent. cumulative dividends; all earnings in excess being paid to the Government as a franchise tax, but half of these surplus earnings go into a surplus fund until it becomes 40 per cent. of the Capital Stock. Whatever the Government receives is to be used either to increase the \$100,000,000 minimum gold reserve in the Treasury against \$346,700,000 United States Notes (the old "Greenbacks" of the Civil War) or for the reduction of interest-bearing debt.

Obviously the potential supply of credit is enormous, and the limit far off. President STRONG computed the increase last year in the potential supply of credit for the district of New York, owing to the entry of the six great Trust Companies into the Federal system, at £1,600,000,000. On the occasion of last year's Amendments to the Act, President WILSON said:—"The purpose is to enlarge still further the resources of the Federal Reserve Banks, correspondingly expanding their loaning capacity and their Note issuing powers. The important functions are now (1) Sale of Government Securities, (2) Receiving and transferring billions of dollars, (3) Supplying credit facilities, (4) Protecting the reserves of the country. Our finances must rest on the firmest possible foundation and they must be adequately and completely conserved so as to respond instantly to every legitimate demand."

Yet another important step was taken when the "War Finance Corporation Act" was passed on the 5th April, 1918, setting up an Institution with £100,000,000 of Capital Stock all subscribed by the United States Government and £600,000,000 borrowing powers "to provide credit for industries and enterprises in the United States necessary or contributory to the prosecution of the war and to supervise the issuance of securities, and for other purposes." Amongst these "other purposes" this Corporation may take part in Reconstruction finance if needed. It is an example of American "Preparedness."

VI. FRANCE'S RECONSTRUCTION AFTER 1870.

Besides having to restore the ravages and waste of war at home, France had to pay five milliards of francs as indemnity, with interest besides and other expenses, amounting in all to 5,862,000,000 francs. To the outward eye the process of payment of the indemnity to Germany is summed up in the words of LEON SAY. "The business went through as if the five milliards had been remitted to Berlin in the form of French Government Rentes; and then Frenchmen sent their savings to Berlin to re-purchase those Rentes, just as they formerly sent them to Italy, the U.S., Austria, and Turkey, to buy Italian, American, Turkish Bonds, or Shares and Debentures of Austrian railways." But in fact those French Government Rentes never went to Berlin. What was the actual transaction?

Reconstruction in France was a comparatively simple affair. No nation can be made bankrupt by debts that she owes only to herself, though it may be awkward for the tax-payer. Indeed she can continue borrowing from herself as long as she is thrifty and produces more than she consumes. France did so. But to send 5,862,000,000 francs. to Germany, she had got to export current production and other saleable forms of wealth, or claims on wealth. The finance of it is summarised as follows in a table.

**TABLE OF PURCHASES OF EXCHANGE, 1871-3, BY THE FRENCH GOVERNMENT, FOR REMITTANCE TO
GERMANY IN PAYMENT OF THE INDEMNITY OF FIVE MILLIARDS OF FRANCS, INTEREST EXPENSES
AND OTHER LIABILITIES.**

		FRANCs.	PAR.	FRANCs.
Thalers ...	690,907,104, bought at an average rate of	3·7910	3·7038	2,619,228,831
Pounds Sterling ...	60,583,453,	do. 25·4943	25·22	1,544,532,725
Marcos Banco ...	280,707,013,	do. 1·8989	1·8519	535,841,617
Belgian Francs ...	518,209,291,	do. 1·0061	1·00	521,370,367
Dutch Florins ...	150,549,519,	do. 2·1509	2·0832	323,816,960
Frankfort Florins ...	110,341,200,	do. 2·1637	2·4646	238,745,254
Reichs Marks ...	63,275,492,	do. 1·2528	1·2346	79,271,536
Total ...		<hr/>	<hr/>	<hr/>
Francs		<hr/>	<hr/>	<hr/>
5,862,807,290		<hr/>	<hr/>	<hr/>

Shortly stated, France's exports during 1871-3, entitled her to exchange in thalers to the extent of 2,619,000,000 francs., secondly to exchange in pounds sterling to the extent of 1,544,000,000 francs., and thirdly to exchange on Hamburg in marks banco, on Belgium in francs, on Holland in florins, on Frankfort in florins, and on the new German Empire in reichs-marks for smaller amounts to make up the total.

These tell-tale bills of exchange denote exports—part of French savings, present and future, not all of which went direct to Germany; some went to England, Belgium and Holland who were creditors of Germany. If only it were possible to know what goods certain of these bills of exchange represented in the French produce markets we should begin to understand how it was possible for £234,000,000 of capital and credit to be transmitted from France to Germany. The accompanying diagram of the rates of exchange for that period shows how well the French managed it. But bills leave no trace. Some must have been drawn against coin and bullion, and some against exports of securities, one of the most important classes of exports, of which no statistics exist. This much is certain that, whereas from 1867-1871 France's imports exceeded her exports, for 1872-3 she temporarily reversed the normal relation and exported more than she imported, as follows :—

Years.	Imports.	Exports.	Excess of	
			Imports.	Exports.
1867	3,026,500	2,825,900	200,600	—
1868	3,303,700	2,789,900	513,800	—
1869	3,153,100	3,074,900	78,200	—
1870	2,867,400	2,802,100	63,300	—
1871	3,566,700	2,872,500	694,200	—
1872	3,570,300	3,761,600	—	191,300
1873	3,600,200	3,926,900	—	326,700

In Thousands of Francs.

In addition to merchandize and securities, France exported French gold, £10,920,000 ; Silver, £9,572,000 ; Bank of France Notes, £5,000,000 ; German Notes and Coin, £4,201,000, total—£29,793,000. Sections of the Chemin de Fer de l'Est in Alsace and Lorraine were taken over by the Germans at £13,000,000.

Between June 1871 and September 1873 the French exchange on London momentarily touched 26·19 fcs. per £, viz. in October, 1871, and that was the extreme depreciation suffered by the franc throughout the whole operation of remitting £234,000,000 to Germany. (See Diagram). For the greater part of the period francs varied only from 25·26 to 25·66 per £, and the average depreciation of the franc in relation to the thaler (at the exchange of 3·75 fixed by Germany) was only a shade over 1 per cent. If during our reconstruction period to come, the external value of the £ suffers no greater depreciation than this, we may be content.

The Custom House returns are the only official documents available, but showing as they do for the three years 1871-3 an excess of *imports* of 176,000,000 francs, they do not explain France's ability to draw bills of exchange, as LEON SAY says, amounting to 4,250,000,000 francs. What the table does show is that immediately after the war France's exports developed greatly ; they became more important than ever before, and in two years attained the unprecedented figure of 518,000,000 excess over imports. Otherwise the payment of the

indemnity would without doubt have encountered enormous difficulties, and it was a happy event that in those two critical years exports contributed so much. But they are far from accounting for the abundance of Bills of Exchange that the French Treasury was able to purchase, especially in view of the fact that imports of merchandize for 1871 had exceeded imports by 694,000,000 francs. A portion of the bills that came to market, and were bought by the French, must have been finance bills. For instance there would be a profit in selling exchange at 26·19 and replacing later at 25·75, or less, and perhaps a profit on the interest account besides. Thus the balance of debt, that could not be paid in kind, was probably paid in exchange as well as in securities.

The whole story is a lesson for us to profit by when our turn comes to pay our debts to America and neutrals. Tables are subjoined of the rates of interest paid on French Government Treasury Bills and the variations therein for the six years 1870-1875; also of the rates of discount and rates for advances and their variations from 1867-1875.

From 31st May, 1867 up to the eve of the war on the 18th July, 1870, the discount rate remained unchanged at $2\frac{1}{2}$ per cent. Direct discount in France by commercial firms takes place on a large scale because the Bank of France with its numerous branches discounts Bills bearing three approved signatures.* There is no such obligation on the part of the Bank of England. France strained every nerve to prepay the indemnity and free her territory and she succeeded in discharging the last instalment on the 5th September, 1873, six months before it was due. The high rates of interest, after payment was accomplished, *viz.*, 6 per cent. on the 14th October, 7 per cent. on 10th November, 6 per cent. on 20th November and 5 per cent. on 27th November, had nothing to do with conditions in France, but were the reflex of the panic in Germany and America. By June, 1874, the discount rate in Paris was down to 4 per cent.; in August, 1874, six months Treasury Bills were down to $3\frac{1}{2}$ per cent. and by August, 1875, to 2 per cent.; with twelve months bills at 3 per cent.

The fluctuations in exchange for the period of payment of the indemnity (see diagram) and the variations in rates of interest and discount are a measure of the difficulties encountered and surmounted by a combination of prudence and boldness from day to day. The basis of success was French thrift—*épargnes*, past, present, and to come, and they continued almost without interruption, even in the midst of military disasters. It was also by good banking, good management of the exchanges and the market for the precious metals, that the risks of paper money were triumphantly avoided.

* The wording of the discount regulations of the Bank of France is as follows:—

A escompter à toute personne ayant compte courant avec faculté d'escompte des lettres de change, warrants commerciaux et agricoles et autres effets de commerce à ordre, revêtus de trois signatures, à des échéances déterminées qui ne peuvent excéder trois mois, tirés, acceptés ou souscrits par des commerçants, des Syndicats agricoles ou autres et autres personnes notoirement solvables.

A comparison of the position of the bank of France before the war and after payment of the German indemnity is as follows :—

	Bullion held.	Notes outstanding.
7th June, 1870 ...	£52,440,000	£55,000,000
11th September, 1873 ...	28,320,000	115,240,000

Thus the circulation of paper in excess of metal cover grew from £2,560,000 to £86,920,000 and yet there was no appreciable depreciation of the paper. "There is plenty of evidence (as Professor IRVING FISHER says, quoting Jevons) to prove that an inconvertible paper money, if carefully limited in quantity, can retain its full value. Such was the case with Bank of England notes for several years after the suspension of specie payments in 1797, and such is the case with the present (1875) notes of the bank of France." For us, as with France, the problem of maintaining the value of our Currency Notes—cancelling them as paid into the Bank to the debit of the Government, not forcing them into circulation but letting them contract and expand automatically as and when demanded—will be a problem of good management.

Solvitur ambulando.

VII. CONCLUSION.

Enough has been said to show that the task of conserving British credit is two-fold and needs differential treatment. A 10 per cent. bank rate no longer brings 'gold from the moon' and therefore our stock of gold must be concentrated under the control of the Bank of England to maintain the external stability of the pound sterling. The maintenance of its internal stability is a comparatively simple task.

The *external* value of the pound will depend on the sum of our foreign indebtedness at the end of the war. Only the Authorities who control the expansion and contraction of Treasury Notes and Bank of England Notes, and who ought to possess the necessary statistics, are in a position to judge how many of those Notes are held, or hoarded, abroad, and will be presented for redemption; and how far the sum total of our external liabilities in gold can be carried in Exchange account till they can be settled in goods, or in securities the making and distribution of which are the province of financial banking. In the meantime it is for the Authorities to judge whether it is, or is not, necessary, or worth while, to stimulate an increased output of gold within the Empire by means of some form of bounty to the mines; or whether the money would be better employed in subsidies and guarantees, needed elsewhere.

On the other hand, to maintain the *internal* value of the pound, *i.e.* to prevent either depreciation or appreciation, depends on maintaining a supply of pounds always equal to the demand. The demand for money to convert war-production to peace-production, and provide facilities to develop it to the utmost, will soon be upon us. We look to our leaders to lead, and make it certain that peace production is not crippled, nor retarded, through inability to obtain the necessary money.

Dear and capricious money checks production, and is a weapon in the hands of good bankers to be employed only against illegitimate speculation. Every loan for productive, or distributive, or national purposes should be self-liquidating within the period, long or short, needed to accomplish its object; so that the product may discharge its debt as it comes to be sold, or consumed, without impairing either the capital of the lender or the collateral of the borrower.

As general prices in America between 1865 and 1879 declined in paper dollars from 216 to 96·6 (see Table p. 35) and in terms of gold from 138 to 96·6, so too in England the tendency of prices is likely to be downward after the war. It is difficult for producers and traders to make money on falling prices, and the task of bankers will not be easy, in conjunction with their customers, to keep trade moving, so as to avoid congested spots which are fuel for panic, liquidation, and hard times. Not that we need anticipate any such crisis as in 1825, after the Napoleonic wars, nor a disaster so great as overtook America under her rigid, decentralized, banking system in 1873—precipitating general liquidation till, by April, 1877, the unemployed were sleeping in churches and fed from soup kitchens, and in one week riots in

Pittsburg destroyed \$5,000,000 of property belonging to the Pennsylvania Railroad. But it depends upon our having the best possible banking system, and the best possible bankers, whether we shall succeed in avoiding some such bitter experience of 'hard times.'

A condition of 'sagging' prices year after year and little or no profit, as in America between 1873 and 1879, is not unknown in this country. Trade goes in cycles. "We all know," as FRANCOIS A. WALKER says,* "that it is entirely possible for production to be locked in 'a vicious circle,' producers closely limiting their operations because consumption is checked; consumption remaining all the while at a minimum for no other reason than that the operative class, producing little, had little wherewith to purchase goods. We have seen in our own lifetime such a situation existing through a long period simply because men of business would not believe in the possibility of recovery, and each waited for the other." Under such conditions quack remedies abound and fallacious theories of currency and prices. MILL noted them between 1819 and 1844, as already mentioned; they prevailed in America between 1865 and 1879; and similarly in Great Britain in 1915-18 the word Inflation has been on everybody's lips to explain the war-rise of prices—a word as disquieting to the public, and to the timid banker, as the blessed word Mesopotamia was comforting to the old lady. 'This is the excellent foppery of the world! that, when we are sick in fortune (often with the surfeit of our own behaviour), we make guilty of our disasters the sun, the moon, and stars: as if we were villains on necessity; fools by heavenly compulsion; knaves, thieves and treachers by spherical predominance,'—an admirable evasion of Economic Man to lay his greedy disposition on the charge of a star!

It is true that physical knowledge has gradually come to rest upon a new foundation. It has become exact. Even in Politics and Economics—sciences which are not yet under the dominion of mathematics and never will be†—a working copy of the mathematical process has been made. Science has put a line upon the earth, and, if it has not drawn out Leviathan with a hook, it has reconstructed him from a fossil bone. But it cannot explain man, nor measure confidence between man and man.‡

"In spite of your fine theoretic positions
Mankind is a science defies definitions."

There is no simple remedy for falling prices, declining production, and hard times, and no road to fortune except man's brains, common sense, and nerve, together with the sweat of his brow. French *épargnes* are a far-sighted insurance against hard times; and there is a proverb for the frugality of the Italian compared with the waste of the Anglo-Saxon,—*Il Inglese crepa di fame dove il Italiano fa fortuna.* Whenever the time of trial comes, along with the vicious circle, leaders are needed, gifted with the sense of what is "high" and what is "low," to pull things out of the rut, restore confidence, and start trade moving again at rising prices. The initiative resides not in money, but in man and his personal credit, assisted by a

* International Bi-metallism, p. 276.

† In their sphere, "things are by nature 'contrary.'" Arist. Eth. Nic.

‡ As was said more than 2,000 years ago, "If you know anything at all, you must know that confidence is the main motive power of business." Demosthenes, pro Phorm.

supply of easy money for as long periods as may be needed to bring to fruition the product of intelligent labour. It is the function of financial banking to encourage the right men, develop the right enterprises, and capitalize them into good securities for distribution.

When the war ends, the working capital of the country will be largely locked up in War Loan Banks, Trust Companies, and others who might embark their capital and credit in the development of the incomparable estates of the British Empire will all be in the same plight—full of Government securities. In the slang of the city the position will be that of a “stale” and unwieldy “bull account” which will have to be liquidated.

If nothing is done to enable holders to sell, or borrow freely, on Government securities, they will fall and will carry all other securities down with them; reconstruction will be delayed; unemployment will be aggravated; production will fall off; wages will be lower; business will get locked in the vicious circle.

On the other hand, if a market is created to take Government Securities, their price will be maintained; holders will be able to sell; the work of reconstruction will be helped; credit will be plentiful; interest will be low; there will not be so much unemployment, for production will increase and counteract a fall in wages.

The first condition of reconstruction and restoration of credit for productive purposes is easy money, surely obtainable on the premier British security.

British policy with regard to money and income tax, offers a curious contrast with German. Up to this year the policy of dear money prevailed in London and a rising income tax, both of which tended to depreciate securities. It became necessary to pay a higher and higher rate of interest on Government loans which, none the less, went to a discount after issue. Though 6 per cent. Exchequer Bonds are stopped, our 5 per cent. War Bonds, repayable at a premium, pay £5 6s. 6d. per cent. less income tax, plus the value of the options which is estimated at 10s. per cent. per annum. In Germany on the other hand, the policy of easy money prevails, and the question of income tax is postponed until after the war. German 5 per cent. War Loans are not depreciated and stand in the market about the issue price of 99. It is strange that our money policy should have been one of restriction, while the German has been one of freedom. Perhaps we had no alternative, owing to the Exchange position, at least until America came into the war. But for reconstruction our money policy must be more elastic. The internal stability of the pound sterling depends on elasticity of supply in relation to the demand for it,—an equilibrium of money as required for the exchange of goods and services for each other and an abandonment of the idea of control of prices by a high rate of interest. The conservation of British credit and the stability of the pound sterling are a task for the good banker as distinguished from the good mathematician.

The nation looks to the directing mind of the Government and the Banks to do something to deal with the conditions of 1919, and to conserve the individualism of British Banking as PEEL did under the conditions of 1844. Granting—what PEEL was doubtful about and left unsolved—that Bankers' loans and deposits are money, it is clear that

no gold reserve which we are likely to possess in the near future will be adequate to act as the basis of our credit system. Even while we were still the creditor country, BAGEHOT, in "Lombard Street," was almost terrified at the picturesque theory (in which he himself believed) that our credit system is an inverted pyramid resting on an apex composed of the Bank of England's gold reserve. As matters stand, British financial credit and the value of the pound sterling have got to rest, for awhile, on the world's faith in our productive power and the latent resources of the Empire. Indeed, for some time past, the gold reserve has been little more than a concrete pledge of our prudent caution in creating money. What then is to be done? Is there anything to be learnt from the Reichsbank and Darlehenskassen? Or is the initiative to be found in the American plan of Clearing House Loan Certificates, and improved upon, perhaps, by incorporating the Clearing House?

And yet there are still people left who say "Leave well alone: with £320,000,000 legal tender notes out already* and possibly £2,000,000,000 deposits by and bye, we shall have more than enough money for reconstruction." Their argument is a characteristic plea for unreadiness. During the orgy of borrowing, deposits have expanded *pari passu* with advances of the Banks to the Government in the form of "Ways and Means," Treasury Bills, and investments. Secondly, deposits have expanded *pari passu* with the rise of wholesale prices.† Thirdly, more coin and notes are needed for retail trade, and for Banks' till-money. If 5 per cent. of deposits is the proper amount of till-money for Clearing Banks to keep, the rise in their deposits from £1,033,000,000 in 1913 to £1,703,000,000 on 31st December, 1917, accounts by itself for an expansion of £33,500,000 coin and notes. Other notes have been substituted for gold, others are circulating from Gibraltar to Hongkong, and some may be hoarded by neutrals and enemies.

When the war is over, and the seller ceases to be able to control the price of the product, the resumption of general production and free transport will together start the down-grade of prices; less currency will be needed for pocket-money, and smaller loans against stocks of goods. Notes not required for internal circulation will be paid into the Bank and cancelled. Notes held abroad, or in the Dominions, will return for redemption in gold or in pounds sterling. The Government will no longer be borrowing and disbursing £7,000,000 a day, but will begin the repayment of "Ways and Means" advances and Treasury Bills out of proceeds of taxation, or by a Funding Loan taken up by the public. The level of deposits will no longer be maintained, but will run down. Thus the expansion in the quantity of money will be reversed and turned automatically into a process of contraction.

The place of the Government as the big borrower will be taken by producers and promoters. Is it contended that Banks will be as ready to make advances, both long and short, to producers and promoters, as they did to Government contractors, and so replenish deposits? When reconstruction comes the Treasury will be pressed for guarantees, subsidies and bounties, for without Government support banks will hesitate to risk their depositors' money on all sorts of enterprises.

* August 1918, and increasing.

† Thus 500 bales of cotton cost about £23,000 instead of £8,000; wool costs £28,000 instead of £10,000; a cargo of wheat costs about £105,000 against £45,000, and of sugar £300,000 against £75,000; and larger loans (with their correlative deposits) are needed to finance trade.

To forestall this situation I do not propose that the State should guarantee producers and promoters, but that the State should guarantee its own signature. In other words, that the State should guarantee the liquidity of bankers' advances on the security of its own loans. In this manner a potential expansion of deposits, as required for reconstruction, will be provided to meet the inevitable contraction, and we shall show that we do not belong eternally to the race of Ethelred the Unready.

A central institution under guarantee of the State, to do for the lock-up of capital in Government Securities what the Bank of England does for the Bill Market, will bring with it many problems of management to be solved experimentally. If the Bank of England can do all that is required, well and good. But it renounced, and necessarily renounced, the lead on the outbreak of war, and surrendered it to the State. Besides, its special province is to regulate the external value of the pound sterling, beginning with Exchange for the Empire; secondly to stabilize, if possible, the relation of the dollar to the pound for the Anglo-Saxon world, and finally to settle with neutrals. A preliminary step towards an arrangement with America would be first to centralize the gold reserves of the Empire, for America naturally expects to see us put our own house in order before she contributes to stabilizing the dollar to the pound.

The internal problem of money within Great Britain, though it necessarily overlaps the external, is separate and simpler. The starting point is to liquefy Government Securities and make them available for reconstruction. The first step towards two Central Institutions came with the recognition of the two-fold nature of the problem, and when a distinction was made between foreign and domestic deposits; to-day $4\frac{1}{2}$ per cent. is allowed on foreign money, whereas a rate of 3 per cent. prevails on home money, and the Government now borrows on Treasury Bills at $3\frac{1}{2}$ per cent. instead of 5 per cent. Two rates for money must last as long as we are a debtor country. They are necessarily related and two institutions would have to keep in close touch. Presumably the State and the Bank of England would both be represented on the Board of the new one along with the Joint Stock Banks, its shareholders.

A new central institution would be the starting point for the goal to be aimed at, viz.—easier money surely obtainable for productive or national purposes, and, along with the development of greater wealth and welfare for the people of the Empire, the redemption of our war debt, and the refunding of it on a 3 per cent. basis.

Freedom, and not restriction of the greatest of all markets—the money market—is indispensable if we are to pay our debts, rehabilitate the pound sterling, and re-establish the position of London as the Clearing House of the world.

VIII. APPENDIX.

LETTER FROM SIR ROBERT PEEL TO THE GOVERNOR OF THE BANK.

WINDSOR CASTLE, 4th JUNE, 1844.

"I need hardly say to you that the letter which I have received from Mr. HORSLEY PALMER has not altered my view.

If the same consequences are hereafter to follow—when the country circulation is restricted to a given amount, and the Bank can only issue on bullion—which did follow when both species of issue were practically uncontrolled, the whole measure is a delusive one.

My confidence is unshaken, that we are taking all the precautions which legislation can prudently take against the recurrence of a monetary crisis. It may occur in spite of our precautions, and if it does, and if it be necessary to assume a grave responsibility for the purpose of meeting it, I daresay men will be found willing to assume such a responsibility.

I would rather trust to this than impair the efficacy and probable success of those measures by which one hopes to control evil tendencies in their beginning, and to diminish the risk that extraordinary measures may be necessary."

Extracts from Sir R. PEEL's Speech of 6th May, 1844, on the renewal of the Bank Charter.

These Extracts are taken from a Presentation Copy from Sir R. PEEL to Lord OVERSTONE and are among those specially marked by Lord OVERSTONE.

"I must state at the outset, that in using the word *money*, I mean to designate by that word the coin of the realm and promissory notes payable to bearer on demand. In using the words *paper currency* I mean only such promissory notes. I do not include in these terms bills of exchange, or drafts on bankers, or other forms of paper credit. I will not weary the House with a discussion as to the precise nature of *deposits*, whether they constitute a part of the currency of the country. There is a material distinction, in my opinion, between the character of a promissory note payable to bearer on demand, and other forms of paper credit, and between the effects which they respectively produce upon the prices of commodities and the Exchanges."

After discussing the question "What is a pound"? Sir ROBERT quotes Lord LIVERPOOL. "Paper currency strictly speaking consists only of bills or notes payable or convertible into cash on demand by the person who issued the same at the will of the holder." That appears to me (Sir ROBERT goes on) to be the true definition of paper currency as distinguished from paper credit. It is the substitute for, and immediate representative of coin, and with coin it constitutes "money." And if you will adhere to the standard of value, and will adopt such measures as shall insure the uniform equivalency of bank notes to coin, you may safely in my opinion, leave untouched other forms of paper credit and entrust the regulation and control of them to individual caution and discretion."

Again at the end of his speech Sir ROBERT makes it quite clear that his main object was "the mitigation or termination of evils, such as those which have at various times afflicted the country in consequence of rapid fluctuation in the amount and value of the medium of exchange. When I call to mind the danger to which the Bank of England has been exposed, the various effects of a sudden change from an over abundant to a contracted circulation, the reckless

speculations of some of the Joint Stock Banks, the losses entailed on their shareholders, the insolvency of so many private Banks, the miserable amount of the dividends which have in many cases been paid, the ruin inflicted on innocent creditors, the shock to public and private credit, then indeed I rejoice on public grounds in the hope that the wisdom of Parliament will at length devise measures which shall inspire just confidence in the medium of exchange, shall put a check on improvident speculations and shall ensure, so far as legislation can ensure, the just reward of industry, and the legitimate profit of commercial enterprise conducted with integrity and controlled by provident calculation."

NOTE ON THE TENDENCY OF MONEY TO CEASE TO BE A MEASURE OF VALUE AND BECOME A UNIT OF ACCOUNT.

The evolution whereby exchange, that begins with barter, tends to return to barter is described with French lucidity by M. CHARLES GIDE, Professor of Social Economics at the University of Paris.*

The exchange of goods for coin (which is barter) is gradually superseded by paper money of three main kinds:—

- (a) "Representative paper money" which merely represents an equivalent amount of metallic money deposited somewhere. For example—American gold certificates are an example of paper money with 100 per cent. gold cover, and PEEL's object in 1844 was to make Bank of England notes equivalent to bullion certificates.
- (b) "Fiduciary paper money" where a fixed proportion of metal reserve, e.g., 33½ per cent. is kept to guarantee convertibility.
- (c) "Conventional paper money," i.e., legal tender, but not necessarily redeemable in coin. Excluding forced currency—"the greatest curse of nations"—Professor GIDE (pp. 437-440) quotes (1) the method of fixing from time to time a maximum amount of paper, as in France where the amount of notes of the Bank of France as settled in 1870 has been raised five times and was fixed in 1911 at 6,800 million francs; the amount of metal cover being left to the discretion of the Bank. (2) The deposit of Government Securities against bank notes, as in the case of national bank notes in the United States.

The next stage of evolution is the cheque. Paper money increases the wealth of a country only to the extent that it allows its metal-monetary stock to be reduced. The Cheque and the Clearing House on the other hand do not force metallic money out, but dispense with the necessity of using it. "The crossed cheque can be used for settlement only by way of contra-account, so that it has been humorously defined as a cheque drawn never to be paid. The German law of 1908 makes it possible indeed to prevent the cheque ever being paid in money, by writing it on the words, 'To be carried to account.'

* "Political Economy." Archibald's authorised translation under direction of William Smart, 1914. pp. 314-329.

"We might perhaps go even further and do without the cheque altogether. Suppose all Frenchmen without exception were to open an account at the same bank which undertook to register each client's receipts and expenses. Under such a system money might be dispensed with to the last farthing. This is no mere dream. The Postal cheque already exists in Austria-Hungary, Switzerland and Germany."

"The evolution just described shows us metallic money in process of being eliminated. But (it may be urged that) paper money, the bank note and the cheque still assume the existence of metallic money in the coffers of the bank. . . . Economic evolution goes a step further when transfers and contra-accounts are the only means used for settlement. It tends, as JEVONS remarked, by completely suppressing the instrument of exchange to bring us back to the direct exchange of goods for goods—in short, to barter.

"It would really be a kind of barter that we should come to under the above hypothesis of a single bank which had all the inhabitants of a country as its clients.

"It is really a kind of barter that is carried on in that wonderful institution the Clearing House. For the seeing eye, the Clearing House has the aspect of a colossal bazaar, somewhat resembling the markets of African tribes, or the cities of antiquity, the sole difference being that instead of goods it is the titles representing goods that are exchanged.

"True, the precious metals, though they may be losing their function as instruments of exchange, still retain their function as measures of value; for it is clear that the value of all these documents, bank notes, etc., rests ultimately on metallic money. Only this basis is daily becoming narrower relative to the enormous edifice which credit is building on it.

"We cannot even be certain that the precious metals may not some day lose their ancient privilege as measures of value. It is quite possible to conceive of a social state in which the unit of value for regulating accounts is purely nominal and corresponds to no existing coin in circulation. History shows many moneys of account of this nature; the Mark Banco of medieval bankers, the livre tournois of the Ancien régime in France, and the English guinea of to-day."

GOLD PRODUCTION, CONSUMPTION AND AGGREGATE STOCK OF MONEY IN MILLIONS OF POUNDS STERLING (EXCEPT FIGURES PER HEAD).

By Mr. JOSEPH KITCHIN.

	1910	1911	1912	1913	1914	1915	1916	1917
India's absorption (year to March 31, following)	18.2	27.5	25.2	18.0	7.6	1.7	(11.1)	
Egypt's absorption	6.1	0.1	4.2	1.4	2.2	0.8		
Industrial consumption Europe and America	23.0	23.5	25.6	27.3	(23)	(15)	(13)	
	47.3	51.1	55.0	43.9	28.4	15.9	24.1	
World's gold production	93.7	95.0	95.9	94.7	92.6	96.8	93.9	89.4
Available as money	46.4	43.9	40.9	50.8	64.2	80.9	69.8	765.0
Aggregate stock of Gold money ...	1461	1505	1546	1596	1660	1741	1811	1876
Aggregate stock of Gold money per head	209d.	213d.	217d.	222d.	229d.	239d.	247d.	253d.

The following gives the world's aggregate stock of gold money per head (of the world's population) at ten year intervals, together with the total of United Kingdom external trade per head (of the U.K. population) at similar intervals, but postponed five years. There is a considerable amount of coincidence in the time and amount of the changes in the two factors :—

TOTALS.				TEN YEARS INCREASE.	
Gold Money per head.	U.K. Trade per head.	Gold Money per head.	U.K. Trade per head.		
1850 55d.	1855 £9·2				
1860 95d.	1865 £16·2	40d.	£7·0		
1870 111d.	1875 £19·8	16d.	£3·6		
1880 119d.	1885 £17·7	8d.	(decrease) £2·1		
1890 121d.	1895 £17·8	2d.	£0·1		
1900 155d.	1905 £22·4	34d.	£4·6		
1910 209d.	1915 £28·7	54d.	£6·3		
1920 say 270d.		61d.			
1930 " 300d.		30d.			

The aggregate stock of gold money figures are carried forward to 1930 (of course on an estimated basis) to show that the further advance is likely to be substantial, even though there will probably be a falling-off in the *annual* gold production.

British Empire gold output 1916, 64 per cent. of World or £60,000,000.

" " " 1917, 63 " " or £56,000,000.

TOTAL GOLD COIN AND BULLION IN THE NEUTRAL STATE BANKS IN MILLIONS OF £.

	Dec., 1913.	July, 1914.	Dec., 1914.	June, 1915.	Dec., 1915.	June, 1916.	Dec., 1916.	June, 1917.	Dec., 1917.	June, 1918.
Bank of Spain	19·2	21·7	22·9	27·6	34·7	41·4	50·0	63·0	78·7	83·8 (June, 22).
Netherlands Bank	12·6	13·5	18·1	30·0	45·8	47·8	49·0	52·2	58·1	60·4 (June, 22).
Swiss National Bank... ...	6·8	7·2	9·5	9·6	10·0	10·2	13·8	13·6	14·3	15·4 (June, 15).
Bank of Sweden	5·7	5·9	6·0	6·3	6·9	9·2	10·2	11·3	13·6	14·4 (June, 8).
National Bank of Denmark...	4·2	4·1	5·3	5·9	6·2	8·4	8·8	11·0	9·6	10·2 (May, 31).
Bank of Norway	2·6	2·9	2·3	3·5	3·7	6·6	6·8	7·2	6·4	6·6 (June, 15).
	51·1									190·8

TOTAL GOLD RESERVES OF THE TWELVE U.S. FEDERAL RESERVE BANKS.

Federal Reserve Banks ...			46·5	51·0	69·0	74·7	90·0	258·9	325·0	380·0 (May 24).
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For the above (except the Federal Reserve Bank figures) I am indebted to Mr. JOSEPH KITCHIN.

There must have been a change in 1917 in the basis of computing the Gold Reserves of the Federal Banks. It is not clear from their statements how much is actually held by the Banks themselves and how much is in the U.S. Treasury at Washington.

**NOTE ON THE AMERICAN INVENTION OF CLEARING HOUSE
CERTIFICATES, 1861-1907.**

The following summary of the procedure of issuing Clearing House Loan Certificates is recorded here because it shows how Banks in combination evolved, without State aid and for use among themselves alone, a form of non-exportable Currency, which enabled them in critical times to lend freely to trustworthy customers on approved collateral. This form of Inflation and Deflation, or, more correctly, of expansion and contraction of credit in bankers' hands, has now been superseded by the much greater flexibility of the Federal Reserve Banking System.

(1) A meeting of all banks is called—(a) National, (b) State, (c) Trust Companies—who are members of the Clearing House Association; and a Clearing House Loan Committee is appointed.

(2) They vote to issue "Clearing House Loan Certificates." A printed form is sent to each bank and passed by its board of directors, under which they agree to be liable *pro rata* (i.e. to the extent of their capital and surplus) for any loss on certificates issued to members of the Clearing House.

(3) The Clearing House Loan Committee pass upon the collateral tendered to them by each bank. Such collateral may be either the securities pledged by the bank's customers or any of the bank's own assets.

(4) Upon such collateral as is passed by the Committee, Clearing House Certificates are issued to each bank up to 75 per cent. of the Committee's valuation. These certificates are used by each bank as required to meet its debit balances day by day to the Clearing House. Certificates are in denomination of 5,000 dollars and 10,000 dollars.

(5) The certificates in New York carry the legal rate of interest, which was six per cent.

(6) Certificates are retired by each bank, principal and interest, as customers' loans are paid off. Each bank reports daily to the Clearing House the amount of certificates it holds, or has outstanding, so that they balance every day.

The result is that fixed assets are made flexible, banks being provided with something to meet their obligations to the Clearing House. In this manner the New York Banks, on many occasions during the last 50 years, strengthened themselves and avoided the necessity of a moratorium. Simultaneously they obtained the means of lending freely to good customers on collateral, and of making large loans to the Government, or New York City, in times of panic.

NOTE.—The above particulars were given in a letter to *The Standard* in Sept., 1914. In view of Government loans to come, the writer [R. B.] then thought that American experience of expanding credit through the Clearing House might be useful for the conduct of our War-Finance; that the Clearing House might, in fact, perform the functions of a Central Institution for domestic borrowings, separable from the functions of the Bank of England.

BANK OF FRANCE RATES OF DISCOUNT AND RATES FOR ADVANCES,
VARIATIONS FROM 1867—1875.

		DISCOUNT.	ADVANCES.
from 31 May, 1867 ...	...	2½ per cent.	3 per cent.
to 1870, 18 July	...	3½	4 "
" 21 "	...	4	4½ "
" 30 "	...	5	5½ "
" 9 Aug.	...	6	6½ "
1871, 20 July	...	5	5½ "
" 3 Nov.	...	6	7 "
1872, 28 Feb.	...	5	6 "
1873, 14 Oct.	...	6	7 "
" 10 Nov.	...	7	8 "
" 20 "	...	6	7 "
" 27 "	...	5	6 "
1874, 5 March	...	4½	5½ "
" 4 June	...	4	5 "
1875		Unchanged.	

RATES OF INTEREST ON FRENCH GOVERNMENT TREASURY BILLS, 1870—1875,
WITH THE DATES OF THE CHANGES THEREIN.

Dates and changes in the Rate.	MATURITIES. (Months.)											
	1	2	3	4	5	6	7	8	9	10	11	12
22 July ... 1870	—	—	2	2	2	3	3	3	3	3	3	4
28 " ... "	—	—	3½	3½	3½	4½	4½	4½	4½	4½	4½	5
17 September ... "	—	—	5½	5½	5½	5½	5½	5½	5½	5½	5½	5½
26 " ... "	5	5½	6	6	6	6	6	6	6	6	6	4
27 July ... 1871	3	3½	4	4	4	4½	4½	4½	4½	4½	4½	5
25 December ... "	4	4½	5½	5½	5½	6	6	6	6	6	6	6
2 April ... 1872	3½	4	5	5	5	5½	5½	5½	5½	5½	5½	5½
27 May ... "	3	3½	4½	4½	4½	5	5	5	5	5	5	5
17 June ... "	2½	3	4	4	4	4½	4½	4½	4½	4½	4½	5
9 August ... "	—	—	3½	3½	3½	4	4	4	4	4	4	6½
17 March ... 1873	—	—	4½	4½	4½	5	5	5	5	5	5	5½
9 February ... 1874	—	—	4	4	4	4½	4½	4½	4½	4½	4½	5
14 April ... "	—	—	3½	3½	3½	4½	4½	4½	4½	4½	4½	5
6 June ... "	—	—	3	3	3	4	4	4	4	4	4	5
2 August ... "	—	—	—	—	—	3½	3½	3½	3½	3½	3½	4
19 February ... 1875	—	—	—	—	—	3	3	3	3	3	3	4
9 August ... "	—	—	—	—	—	2	2	2	2	2	2	3



TABLEAU GRAPHIQUE
DU COURS DU CHANGE DE PARIS SUR LONDRES
 du mois de Juin 1871 au mois de Septembre 1873.

1871

1872

1873



1871

1872

1873

Gold, Prices, and Banking Statistics, 1895-1917.

Compiled (mainly from the "Economist") in the Department of Economics, University College, Nottingham.

	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	
INDEX NUMBERS of Prices (Board of Trade)	90.7	88.2	90.1	93.2	92.2	100	96.7	96.4	96.9	98.2	97.6	100.8	106.0	103.0	104.1	108.8	109.4	114.9	116.5	117.2	143.9	186.5	242.9	
GOLD, ANNUAL PRODUCTION	40.5	41.9	48.9	59.3	63.2	52.8	54.3	59.3	65.9	69.8	75.7	81.1	82.3	88.7	92.0	90.9	91.9	94.5	92.5	90.3	94.6	94.1	89.0	
% on 1900	77	79	93	112	120	100	103	112	124	132	143	154	186	168	174	172	174	179	175	172	179	178	169	
WORLD'S STOCK*	1,224	1,252	1,285	1,324	1,366	1,402	1,438	1,477	1,521	1,568	1,618	1,672	1,727	1,786	1,848	1,908	1,970	2,033	2,095	2,155	2,218	2,281	2,340	
% on 1900	87	89	91	94	97	100	103	105	108	112	115	119	123	128	132	136	141	145	150	154	159	164	167	
CLEARING HOUSE Returns	7,593	7,575	7,491	8,097	9,150	8,960	9,561	10,029	10,120	10,564	12,288	12,711	12,730	12,120	13,525	14,659	14,614	15,962	16,436	14,665	13,408	15,275	19,121	
% on 1900	84	84	83	90	102	100	107	112	113	118	137	142	142	135	151	164	163	178	183	164	149	171	213	
BANKING Statistics.																								
I.—CAPITAL AND RESERVES.																								
Bank of England	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	
Other Banks	106	106	106	109	110	112	113	115	114	114	114	114	114	113	113	114	113	113	114	113	112	111	114	
Total	124	124	124	127	128	130	131	133	132	132	132	132	132	131	131	132	131	131	132	131	130	129	132	
% on 1900	95	95	95	98	98	100	101	102	102	102	102	102	101	101	101	102	101	102	101	102	101	100	99	102
II.—DEPOSITS.																								
Bank of England	66	55	50	43	49	44	48	65	56	53	52	50	49	62	61	56	61	67	71	155	162	179	190	
Other Banks	665	688	708	735	759	783	781	792	772	785	811	835	842	864	878	918	953	987	1,033	1,137	1,245	1,445	1,703	
Total	731	743	758	778	808	827	829	857	828	838	863	885	891	926	939	974	1,014	1,054	1,104	1,292	1,407	1,624	1,893	
% on 1900	89	90	93	94	98	100	104	100	101	104	107	108	112	113	118	123	127	134	156	170	197	230		
% on Capital	590	600	612	614	630	630	632	644	629	634	650	670	710	730	740	770	800	870	990	1,080	1,260	1,430		
III.—NOTE ISSUES.																								
Bank of England	26	27	27	27	28	30	30	30	29	28	29	29	30	30	29	29	29	29	30	36	35	40	46	
Other Banks	14	15	15	15	16	16	16	16	15	15	15	15	15	14	15	15	15	16	17	22	29	35	42	
Total	40	42	42	42	44	46	46	46	44	43	44	44	45	44	44	44	44	45	47	58	64	75	88	
% on 1900	87	91	91	91	96	100	100	100	95	93	95	95	98	95	95	95	95	98	102	126	139	163	191	
IV.—CASH AND CALL MONEY.																								
Bank of England	45	34	30	29	29	29	32	29	29	30	29	31	31	33	31	32	31	35	69	51	54	58	527	
Other Banks	165	160	168	180	181	193	201	211	191	207	221	223	238	246	246	263	271	293	340	330	454	454		
Total	210	194	198	209	210	222	233	240	220	237	250	252	251	269	279	277	295	302	328	409	381	508	585	
% on 1900	95	87	89	94	95	100	105	108	99	107	112	113	112	121	126	125	133	136	148	184	172	228	265	
% on Deposits	28.6	26.2	26.2	26.9	26.0	26.8	28.2	28.0	26.6	28.3	29.0	28.5	28.0	28.0	29.8	28.3	29.0	28.6	29.7	31.6	27.0	31.3	30.8	
V.—INVESTMENTS.																								
Bank of England	32	31	30	28	30	34	35	35	38	34	31	34	33	33	33	34	34	33	32	33	51	76	66	
Other Banks	181	185	188	189	190	194	195	195	186	190	192	190	187	198	202	200	196	191	225	422	440	463		
Total	213	216	218	217	220	228	230	230	224	224	223	224	220	231	235	236	234	229	223	258	473	516	529	
% on 1900	93	95	96	95	97	100	101	101	98	98	98	97	101	103	104	102	100	98	113	207	226	231		
% on Deposits	29.0	29.0	28.8	27.8	27.5	27.8	26.8	27.1	26.7	25.9	24.6	24.6	25.0	24.2	23.0	21.8	20.2	20.0	33.5	31.7	28.5			
VI.—DISCOUNTS.																								
Bank of England	34	35	35	31	36	29	29	48	36	35	40	34	33	45	42	37	42	50	52	106	112	106	95	
Other Banks	441	464	475	487	501	523	511	514	523	517	527	554	563	554	599	618	651	684	700	633	694	879		
Total	475	499	510	518	537	552	540	562	559	562	567	588	596	599	601	636	660	701	736	806	745	800	974	
% on 1900	86	90	92	94	97	100	94	102	101	102	103	106	108	109	109	116	120	127	133	146	136	145	176	
% on Deposits	65.0	67.0	67.0	65.8	66.2	67.2	65.0	64.7	67.6	67.0	65.6	66.2	66.9	64.5	64.1	65.2	66.6	66.5	62.3	53.1	49.1	51.3		

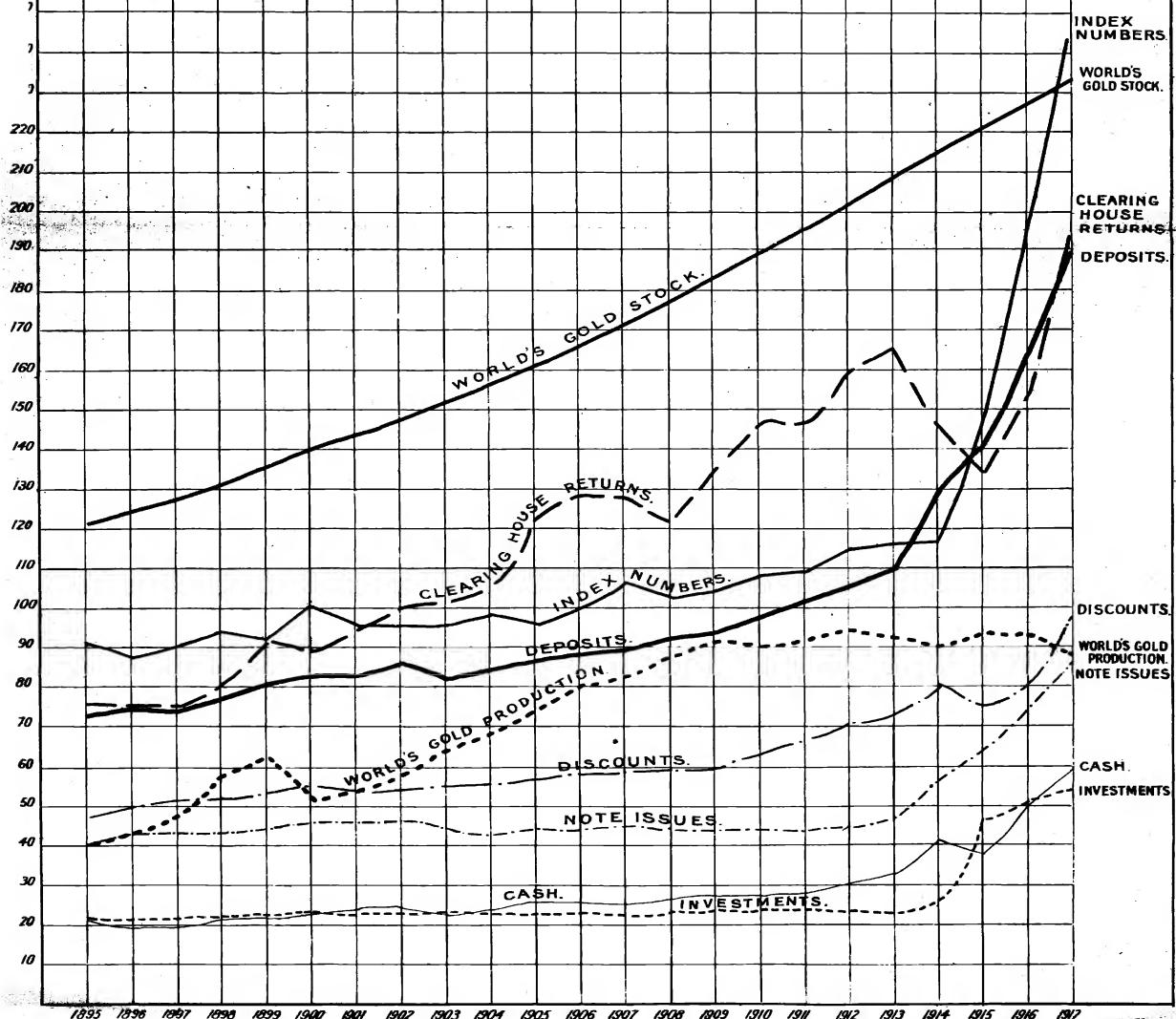
* Cumulative total of £'ds of annual production since 1893.—See "The Mechanism of Exchange." (Milford, 1917.) Table I.

In millions of £s throughout.

JOHN A. TODD,
6th May, 1918

Diagram, A.
**GOLD, PRICES & BANKING STATISTICS,
 1895-1917.**
ACTUAL FIGURES.

JOHN A. TODD,
 SP. MAY 1918.



Diagram, B.
**GOLD, PRICES & BANKING STATISTICS,
 1895-1917.**
 IN PERCENTAGES ON 1900.

JOHN A. TODD
 GEN. MANAGER

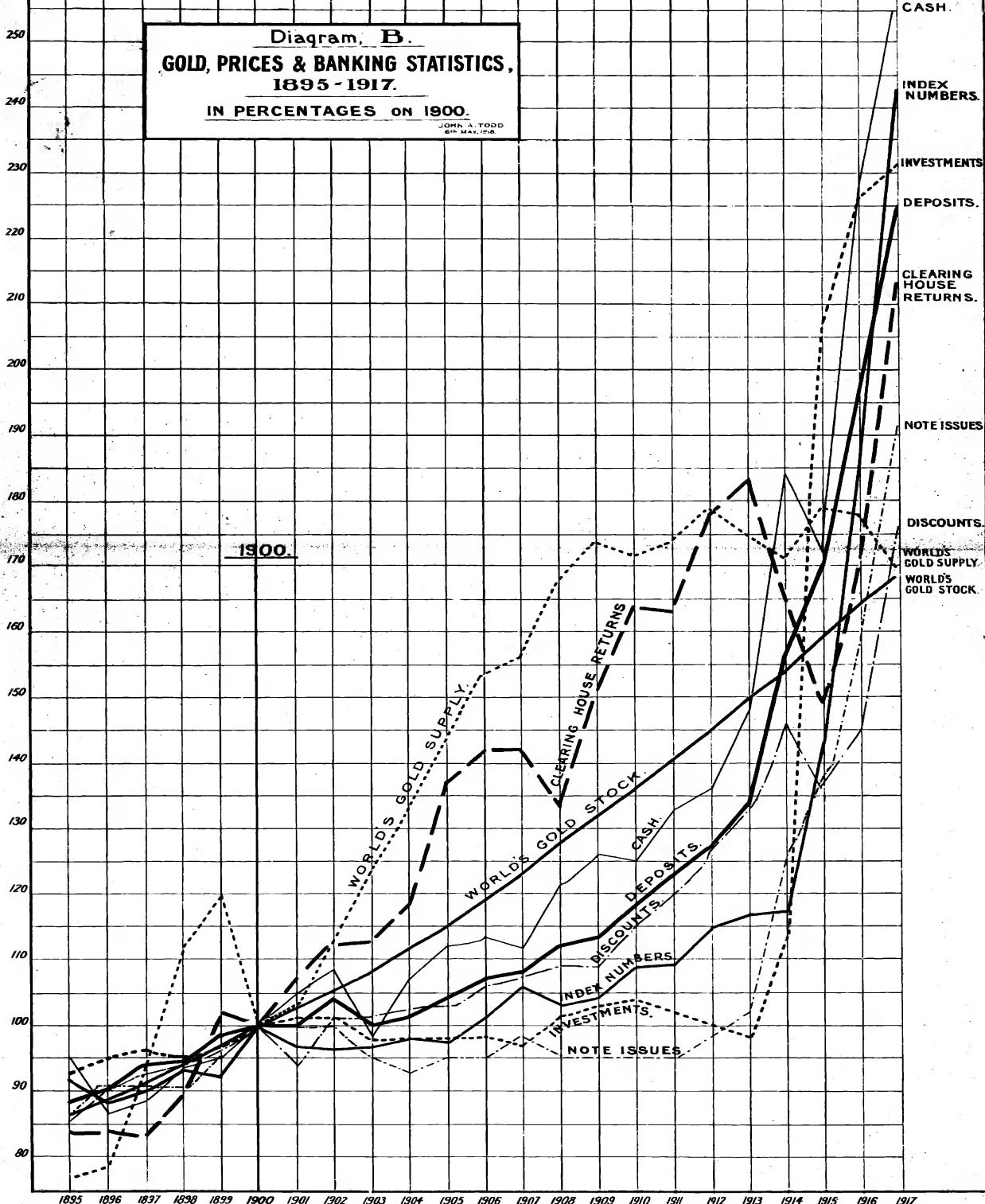


Diagram. C.
GOLD, PRICES & BANKING STATISTICS,
1910 - 1917.
PERCENTAGES ON 1900.

JOHN A. TODD
6TH MAY, 1916.

